Intex Corporate Office and Fulfillment Center

Draft Environmental Impact Report

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prepared by

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Executive Summary

This document is an Environmental Impact Report (EIR) analyzing the environmental effects of the proposed Intex Corporate Office and Fulfillment Center. This section summarizes the characteristics of the proposed project, alternatives to the proposed project, the environmental impacts of the proposed project, and the mitigation measures identified by this EIR to reduce the proposed project's environmental impacts to a less than significant level for those impacts that are potentially significant without such mitigation.

Project Synopsis

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Project Description

This EIR has been prepared to examine the potential environmental effects of the Intex Corporate Office and Fulfillment Center Project. The following is a summary of the full project description, which can be found in Section 2, *Project Description*.

The project site is located on a vacant property directly across Via Oro Avenue from the current Intex Recreation Corporation building at 4001 Via Oro Avenue in the City of Long Beach. The project site is relatively flat with an area of 26.47 acres. The parcels on which the project site is located have Assessor Parcel Numbers of 7310-015-034, 7310-015-019, and 7310-015-023.

The project site is in the "I" (Industrial) Place Type of the City's newly adopted (December 2019) General Plan Land Use Element and is located on "Ownership Parcel B" in Subarea I of the West Long Beach Business Parks Planned Development District (PD-26). The proposed project would not require amendments to the City's General Plan or the Long Beach Municipal Code (LBMC).

The proposed project includes the construction of a new 60-foot-tall, 517,437 square foot (sf) combination warehouse and distribution center with accessory offices. Goods would be imported via the nearby Port of Los Angeles and Port of Long Beach, sorted and stored on-site, and then distributed nationally from the project site. Plans for the proposed project are shown in Figure 2-4 and Figure 2-5 of this EIR. Table ES-1 summarizes the project characteristics.

Table ES-1 Project Characteristics

Lot and Development Summary	
Lot Summary	
Total Lot Area	1,153,019 sf (26.47 ac)
Building Area and Coverage	
Building Area (Net)	560,039 sf
Footprint	517,880 sf (45% site coverage)
Mezzanine	42,159 sf
Floor Area Ratio (FAR), Gross	0.49
Building Use	
Warehouse	543,239 sf
Office	16,800 sf
Required Parking	
Warehouse	508 stalls
Office	52 stalls
Required Accessible	11 stalls
Total	**560 stalls**
Proposed Parking	
Auto	570 stalls
Proposed Accessible	10 stalls[1]
Trailer	174 stalls
Truck Docks	
Dock-High Doors	64
Grade-Level Doors	2
Development Standards	
Zoning	
West Long Beach Business Parks Planned Development District (PD-26)	
Building Setbacks	
Front	20 feet
Side	20 feet
Rear	20 feet
Off-Street Parking	
Standard	8.5 feet x 18 feet
Compact	8 feet x 15 feet
Drive Aisle	24 feet
Required Parking Ratio By Use	
Warehouse	1/1,000 sf
Office (Less than 25% of Total)	1/1,000 sf
Tree Calculations	
Parking Lot Trees Required (1 tree/4 parking spaces)	143
Parking Lot Trees Provided	138[2]
Street Trees Required (1 tree/25 lin. ft. of street frontage)	110
Street Trees Provided	103

[1] These 10 accessible stalls are included in the total of 570 stalls. Compliance with accessible parking requirements will be subject to regulatory compliance at the time of building permit application, as determined by the City of Long Beach Building and Safety Bureau.
[2] Compliance with parking lot landscaping and street tree requirements will be subject to regulatory compliance with Chapter 21.42 (Landscaping Standards) of the City's Zoning Regulations at the time of building permit application, and per project conditions of approval, as determined by the Director of Development Services.

Via Alcade Avenue Street Vacation

A major component of the proposed project is the requested street vacation of Via Alcalde Avenue. This right-of-way, once vacated, would become part of the site to be used for vehicle and truck parking and for on-site truck turning and maneuvering. A year-long effort by the project applicant and the City's Public Works Department in conjunction with Caltrans and Metro (LACMTA) has resulted in a determination that the vacation would be feasible and satisfactory to all parties involved.

Landscaping

Under the proposed project, a variety of trees and shrubs would be added to the project site. According to the project site plan shown in Appendix O, a total of 103 street trees would be located in the public right of way on all sides of the project site and 138 parking lot trees would be dispersed throughout the site. The Arborist Report and Tree Protection Plan completed for the proposed project in March 2023 by Rincon Consultants (Appendix B of this EIR) estimated that there are 207 trees on the project site (including 168 trees in the public right-of-way and 39 trees within the privately-owned project site) and that the proposed project would require removal of 139 trees within the project site, while retaining 39 trees with minor impacts, and one tree with a major impact.

Utilities

There currently is no natural gas service provided at the project site. As further described in Section 2.8.1, *Conditions of Approval*, the proposed project is required to incorporate full carbon/electricity generation offset by including solar panels. This would preclude the use of natural gas for operation of the proposed project. The proposed project would connect to existing electrical lines operated by Southern California Edison. The project would connect to existing water and sewer lines operated by the Long Beach Utilities Department[1].

Project Objectives

- Improve the efficiency of Intex's business operations by consolidating the company's warehousing, distribution, and office operations (including its current operations in Fontana, California and locally at 4001 Via Oro Avenue and 1665 Hughes Way) into a single location
- Develop the currently vacant project site with a project that would be consistent with the intended use of the site as reflected in its zoning and General Plan PlaceTypes (land use designation)
- Improve the efficiency of the flow of cargo from the Ports of Long Beach and Los Angeles to the developer's new consolidated warehouse and corporate headquarters (project) and subsequent national distribution of products from this location
- Improve circulation around, into, and out of the project site and improve the safety and aesthetics of the project area by vacating Via Alcalde Avenue in the eastern portion of the project site
- Implement a project that will provide high quality design, materials, and operational methods to promote sustainability, energy, and water conservation and healthy workplaces
- Enhance the City's economy and tax base by developing the currently vacant property with improvements that will generate increased property taxes, employment, and economic activity

[1] Gas service was formerly provided by the Long Beach Energy Resources Department; and water, reclaimed water, and sewer service were provided by Long Beach Water Department; but as a result of a recent City Charter amendment these departments have been combined and are now known as the Long Beach Utilities Department.

Alternatives

As required by the California Environmental Quality Act (CEQA), this EIR examines alternatives to the proposed project. Studied alternatives include the following two alternatives:

- Alternative 1: No Project
- Alternative 2: Reduced Intensity

Based on the alternatives analysis, Alternative 1 was determined to be the environmentally superior alternative. These alternatives are further described below.

Alternative 1: No Project. This alternative assumes that the improvements included in the proposed project would not be implemented and the site would remain in its present condition, as a vacant, undeveloped field. This alternative would not meet the objectives of the proposed project because it would not improve the efficiency of Intex's business operations; develop the currently vacant project site; improve the efficiency of the flow of cargo from the Ports of Long Beach and Los Angeles; improve circulation around, into and out of the project site and improve the safety and aesthetics of the project area; implement a project that will provide high quality design, materials, and operational methods to promote sustainability, energy, and water conservation and healthy workplaces; or enhance the City's economy and tax base by developing the currently vacant property with improvements that will generate increased employment, economic activity, and property taxes. Leaving the site as undeveloped land also would be inconsistent with the City's General Plan policies and objectives for the Industrial PlaceType, as described in the General Plan. Implementation of the No Project alternative would not preclude future development on the site. Any future development projects proposed on the site would be subject to at least the same level of discretionary review as required of the proposed project. The No Project Alternative would avoid almost all impacts of the proposed project's environmental impacts but would result in greater impacts to transportation and land use and planning. Thus, the No Project Alternative is determined to be the environmentally superior alternative.

Alternative 2: Reduced Intensity. This alternative assumes that the amount of development included in the proposed project would be reduced. For the purposes of this alternatives analysis, a 50 percent reduction in total square footage, including square footage of warehouse and office uses and parking spaces, is assumed. This would result in a reduction from 560,039 square feet (sf) of total floor area to 271,619.5 sf of floor area; a reduction 543,239 sf of industrial uses to 271,260 sf; a reduction of 16,800 sf of office uses to 8,400 sf; and a reduction from 570 auto stalls, 10 accessible stalls, and 174 trailer stalls to 285 auto stalls, 5 accessible stalls, and 87 trailer stalls. The intent of this alternative is to reduce any potentially significant impacts associated with the proposed project that would result from its full proposed project intensity, such as traffic, noise, and air quality impacts. This alternative would generally meet some of the project objectives, but not all of the project objectives. This alternative would not meet the project objective of consolidating the company's operations into a single location because the reduced development intensity of this alternative would make it too small to accommodate the operations of Intex's three current operation sites. Additionally, the reduced development intensity of this alternative would make it too small to meet the other project objectives of improving the efficiency of the Ports of Long Beach and Los Angeles through a larger, consolidated site and enhancing the City's employment, economy, and tax base as effectively as the proposed project. The Reduced Intensity Alternative would reduce some of the impacts of the proposed project, increase impacts related to land use and planning and transportation (specifically VMT), and would have a similar level of impacts in all other impact areas.

Refer to Chapter 6, *Alternatives*, for the complete alternatives analysis.

Areas of Known Controversy

The EIR scoping process did not identify any areas of known controversy for the proposed project. Responses to the Notice of Preparation of a Draft EIR and input received at the EIR scoping meeting held by the City are summarized in Section 1, *Introduction*.

Required Approvals

The proposed project would require approvals by the Long Beach Planning Commission and approvals and adoption by the Long Beach City Council, including the following discretionary approvals:

- Site Plan Review: approval by the Planning Commission
- Lot Merger: approval by the Planning Commission or Zoning Administrator
- Street Vacation General Plan Conformity Finding for Via Alcalde Avenue: finding by Planning Commission (completed August 6, 2020)
- Right-of-Way Vacation for Via Alcalde Avenue: approval by the City Council following project approval and EIR certification by Planning Commission

In addition, ministerial permits, including grading permits, building permits, and public works permits, would be issued by the City to allow site preparation and construction of the proposed project and off-site project infrastructure connections.

Issues Not Studied in Detail in the EIR

Table 1-2 in Section 1.4 summarizes issues from the environmental checklist that were addressed in the Initial Study (Appendix B). As indicated in the Initial Study, there is no substantial evidence that significant impacts would occur to the following issue areas: Aesthetics, Agricultural Resources, Hydrology and Water Quality, Mineral Resources, Population and Housing, Recreation, and Wildfire. Impacts to Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Land Use and Planning, Noise, Public Services, Transportation, Tribal Cultural Resources, and Utilities and Services Systems were found to be potentially significant and are addressed in this EIR.

Summary of Impacts and Mitigation Measures

Table ES-2 summarizes the environmental impacts of the proposed project, proposed mitigation measures, and residual impacts (the impact after application of mitigation, if required). Although distinct from mitigation measures, project design features (PDFs) are also listed because they will be included as conditions of approval by the City to avoid potential biological and geological impacts. Impacts are categorized as follows:

- **Significant and Unavoidable.** An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per §15093 of the CEQA Guidelines.

- **Less than Significant with Mitigation Incorporated.** An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under §15091 of the CEQA Guidelines.
- **Less than Significant.** An impact that may be adverse, but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact:** The proposed project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

As stated above, the Initial Study (Appendix A) determined that impacts related to Aesthetics, Agricultural Resources, Hydrology and Water Quality, Mineral Resources, Population and Housing, Recreation, and Wildfire would be less than significant. These environmental topics are not further analyzed in this EIR.

The EIR determined that the project would not have any significant impacts. Impacts related to Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions, and Tribal Cultural Resources would be less than significant with mitigation incorporated. Impacts related to Air Quality, Energy, Hazards and Hazardous Materials, Land Use and Planning, Noise, Public Services, Transportation, and Utilities and Service Systems were determined to have a less than significant impact.

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measure	Significance After Mitigation
Air Quality		
Impact AQ-1: Construction and operation of the proposed project would not exceed SCAQMD's regional thresholds of significance; therefore, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the region is in nonattainment under applicable federal or State ambient air quality standards, and impacts related to construction and operation would be less than significant.	None required.	Less than significant without mitigation.
Impact AQ-2: The proposed project would not exceed SCAQMD localized thresholds of significance and Toxic Air Containments Thresholds for cancer and chronic risk. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations in the form of toxic air contaminant emissions. Impacts would be less than significant.	None required.	Less than significant without mitigation.
Biological Resources		
Impact BIO-1: The proposed project would have no impact on special-status plant or wildlife species due to the project site's lack of suitable habitat for such species, its location, and historic and current disturbances.	None required.	Less than significant without mitigation.
Impact BIO-2: Because the project site contains suitable nesting, roosting, and foraging habitat for bird and raptor species protected by the MBTA and CFGC, the proposed project has the potential to impact nesting raptors and migratory birds. Impacts would be mitigated to a less than significant level.	**MM-BIO-1 Pre-Construction Bird Surveys** The following is required to maintain compliance with CFGC Sections 3503 and 3503.5 and the MBTA with respect to nesting birds: ▪ If construction activities take place during the bird nesting season (generally February 1 through August 31, but variable based on seasonal and annual climatic conditions), nesting bird surveys shall be performed by a qualified biologist (a biologist with experience with avian species in the Los Angeles County region) and within seven days prior to project activities to determine the presence/absence, location, and status of any active nests on-site and within 100 feet of the site ▪ If nesting birds are found on-site, a construction buffer of appropriate size (as determined by the qualified biologist) shall be implemented around the active nests and demarcated with fencing or flagging. If ground/burrow nesting birds are identified, demarcation materials that do not	Implementation of Mitigation Measure BIO-1 would reduce impacts to nesting birds and raptors to a less than significant level.

Impact	Mitigation Measure	Significance After Mitigation
	provide perching habitat for predatory bird species shall be used. Nests shall be monitored at a minimum of once per week by the qualified biologist until it has been determined that the nest is no longer being used by either the young or adults. No ground disturbance shall occur within this buffer until the qualified biologist confirms that the breeding/nesting is complete, and all the young have fledged and are capable of surviving independently of the nest. If project activities must occur within the buffer, they shall be conducted at a distance that will prevent project-related disturbances, as determined by the qualified biologist If no nesting birds are observed during pre-construction surveys and construction continues at the site without substantial delays (i.e. pause in activity of more than seven days) during the nesting season, no further actions are necessary. If the proposed project is phased or construction activities stop for more than seven days, a subsequent pre-construction nesting bird survey shall be conducted prior to each phase of construction, if initiated during the bird breeding season.	
Impact BIO-3: The proposed project would have no impact on any riparian habitat, federally or state protected wetlands, or other sensitive natural communities because the project site does not contain, nor is it adjacent to, such resources.	None required.	No impact.
Impact BIO-4: The proposed project would not have a substantial adverse effect on wildlife movement due to existing disturbances on the project site. This impact is less than significant without mitigation.	None required.	Less than significant without mitigation.
Impact BIO-5: Because the proposed project would involve replacement of trees that would be removed, in accordance with the City's required tree replacement ratios, it would not have a substantial adverse effect on protected trees. This impact is less than significant without mitigation.	None required.	Less than significant without mitigation.
Impact BIO-6: Because the project site is not in any HCP, NCCP, or other approved local, regional, or state habitat conservation plan area, the proposed project would not conflict with any such plan.	None required.	No impact.

Impact	Mitigation Measure	Significance After Mitigation
Cultural Resources		
Impact CUL-1: The proposed project would not cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5 because no historical resources have been identified within the project site. There would be no impact.	None required.	No impact.
Impact CUL-2: Because of the project site's proximity to permanent water sources that increase the likelihood of encountering subsurface archaeological resources beneath the project site, the proposed project could cause a substantial adverse change in the significance of an archaeological resource pursuant to *CEQA Guidelines* Section 15064.5. Impacts would be mitigated to a less than significant level.	**MM-CUL-1 Worker's Environmental Awareness Program** A qualified archaeologist shall be retained to conduct a Worker's Environmental Awareness Program (WEAP) training on archaeological sensitivity for all construction personnel prior to the commencement of any ground-disturbing activities. The training shall be conducted by an archaeologist who meets or exceeds the Secretary of Interior's Professional Qualification Standards for archeology (National Park Service [NPS] 1983). Archaeological sensitivity training shall include a description of the types of cultural material that may be encountered, cultural sensitivity issues, the regulatory environment, and the proper protocol for treatment of the materials in the event of a find. **MM CUL-2 Periodic Archaeological Spot Checks** A qualified archaeologist shall be retained to conduct a Worker's Environmental Awareness Program (WEAP) training on archaeological sensitivity for all construction personnel prior to the commencement of any ground-disturbing activities. The training shall be conducted by an archaeologist who meets or exceeds the Secretary of Interior's Professional Qualification Standards for archeology (National Park Service [NPS] 1983). Archaeological sensitivity training shall include a description of the types of cultural material that may be encountered, cultural sensitivity issues, the regulatory environment, and the proper protocol for treatment of the materials in the event of a find.	Implementation of Mitigation Measures CUL-1 through CUL-3 would reduce potential impacts to archaeological resources to a less than significant level and would effectively mitigate the project's impacts to these resources through the recovery, identification, and treatment of archaeological resources.

Impact	Mitigation Measure	Significance After Mitigation
	MM CUL-3 Unanticipated Discovery of Cultural Resources In the event that archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 50 feet of the find shall halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the resource. If the discovered resources are tribal cultural resources, Mitigation Measures TCR-1 and TCR-2 in Section 4.12, *Tribal Cultural Resources,* of this EIR shall be followed. If the qualified archaeologist and/or Native American representative determines it to be appropriate, archaeological testing for CRHR eligibility shall be completed. If the resource proves to be eligible for the CRHR and significant impacts to the resource cannot be avoided via project redesign, a qualified archaeologist shall prepare a data recovery plan tailored to the physical nature and characteristics of the resource, per the requirements of CCR Guidelines Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to cultural resources related to the resource. Pursuant to the data recovery plan, the qualified archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. The City shall review and approve the treatment plan and archaeological testing as appropriate, and the resulting documentation shall be submitted to the regional repository of the California Historical Resources Information System, per CCR Guidelines Section 15126.4(b)(3)(C).	

Impact	Mitigation Measure	Significance After Mitigation
Impact CUL-3: In the event that the proposed project disturbs human remains, including those interred outside of formal cemeteries, adherence to existing regulations regarding the treatment of human remains would result in a less than significant impact.	Compliance with existing regulations would reduce the proposed project's potential to disturb human remains to a less than significant level by ensuring proper identification and treatment of any human remains that would be present. No mitigation would be required.	Less than significant without mitigation
Energy		
Impact E-1: The proposed project would consume gasoline, diesel, and electricity, but would incorporate design features required by the 2022 Title 24 standards. therefore, the project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. This impact would be less than significant.	Compliance with existing regulations would reduce the proposed project's potential impact to a less than significant level by ensuring energy efficiencies are incorporated into project design and operation. No mitigation would be required.	Less than significant without mitigation
Impact E-2: The proposed project would consume energy but would not conflict with the City of Long Beach Climate Adaptation Action Plan Checklist, City of Long Beach General Plan, and SCAG 2020-2045 RTP/SCS. This impact would be less than significant.	Compliance with existing regulations would reduce the proposed project's potential impact to a less than significant level by ensuring energy efficiencies are incorporated into project design and operation, consistent with state and local plans and regulations. No mitigation would be required.	Less than significant without mitigation
Geology and Soils		
Impact GEO-1 Because the project site is underlain by potentially liquefiable soils, the proposed project could expose people or structures to substantial adverse effects from seismic-related liquefaction. Compliance with applicable laws and regulations would help reduce potential impacts, but Mitigation Measures GEO-1 through GEO-4 are required to ensure that this impact would be reduced to a less than significant level.	**MM GEO-1 Foundation Considerations** If subterranean construction is planned, footings should automatically extend into the firm natural soils. For preliminary design, it may be assumed that footings carried into the firm natural soils may be designed to impose a net dead plus live load pressure of 4,000 pounds per square foot. Either driven friction piling or drilled cast-in-place concrete piling may be used; the lengths of drilled piling would be restricted to about 40 feet below the existing grade due to water. For preliminary design, it may be assumed that a 12-inch-square prestressed concrete driven pile, 40 feet long, will develop a downward capacity of about 180 A 24 kips. -inch-diameter drilled cast-in-place concrete pile, 30 feet long, will develop a downward capacity of about 120 kips, and a 40 feet long pile will develop a downward capacity of about 180 kips. Shorter piles will have to be used if a basement is planned in order to keep the	Implementation of Mitigation Measures GEO-1 through GEO-4 would reduce the proposed project's potential impacts related to liquefaction to a less than significant level.

Impact	Mitigation Measure	Significance After Mitigation
	tips of the drilled piles within 40 feet of the present ground surface and above the ground water level. **MM GEO-2 Excavation** Conventional earth-moving equipment may be used. If the necessary space is available, temporary unsurcharged excavations may be sloped back at 3/4:1(horizontal to vertical) in lieu of using shoring. **MM GEO-3 Grading** To provide support for floor slabs and walks on grade, the existing fill materials and disturbed natural soils should be excavated and replaced with properly compacted fill. The on-site soils, less debris and organic matter within fill deposits, would be suitable for use in compacted fills. **MM GEO-4 Floor Slab Support** The building floor slabs may be supported on grade. No special requirements are anticipated. Where a capillary break is considered necessary, the floor slabs may be supported on a layer of gravel or on an impermeable membrane.	
Impact GEO-2: The proposed project could be located on a geologic unit or soil that is unstable or become unstable resulting in lateral spreading, subsidence, or collapse. Compliance with applicable laws and regulations would ensure that impacts would be less than significant.	None required	Less than significant without mitigation.
Impact GEO-3: Development facilitated by the project may be located on expansive soil and could be subject to liquefaction hazards. Compliance with the CBC would reduce liquefaction hazards. Existing Safety Element policies would apply to development facilitated by the proposed project in hazard zones for liquefaction or lateral spreading of soils. Impacts would be less than significant.	None required	Less than significant without mitigation.

Impact	Mitigation Measure	Significance After Mitigation
Greenhouse Gas Emissions		
Impact GHG-1: The proposed project would generate temporary and long-term increases in greenhouse gas emissions but would be consistent with the City of Long Beach Climate Adaptation Action Plan Checklist, 2022 Scoping Plan, SCAG 2020-2045 RTP/SCS, and City of Long Beach General Plan. This impact would be less than significant.	**MM GHG-1 Greenhouse Gas Emissions Reduction Actions** The proposed project would incorporate Tier 1 GHG emissions reduction actions to demonstrate consistency with the Long Beach CAAP Checklist for new developments. The proposed project would incorporate the following actions: a. The applicant/developer shall install onsite renewable energy systems or shall participate in SCE Green Rate (100 percent carbon-free electricity) to supply 100 percent carbon-free electricity to the project site. A combination of onsite and offsite energy supply with 100 percent carbon-free electricity can be used to satisfy the CAAP's zero-carbon electricity requirement b. The applicant/developer shall provide short and long-term bicycle parking for at least five percent of motorized vehicle capacity and nothing less than CalGREEN requirements, whichever is more restrictive c. The applicant/developer shall incorporate electric vehicle parking spaces consistent with LBMC 18.47.050 and CALGreen Section 5.106.5.3—Electric vehicle (EV) charging. At least twenty percent of all parking spaces shall be EV capable spaces (EVCS) (114 out of 570 total parking spaces) and at least 25 percent of these EVCS (29 out of 114 EVCS) must be equipped with charging stations d. The applicant/developer shall comply with the City's of Long Beach TDM Ordinance for nonresidential development of 100,000 square feet by the following: ▪ A safe and convenient zone in which vanpool and carpool vehicles may deliver or board their passengers ▪ Sidewalks or other designated pathways following direct and safe routes from the	With incorporation of Mitigation Measure GHG-1, the proposed project would incorporate Tier 1 measures that are required for projects to be consistent with the CAAP Checklist, which aims to reduce Long Beach's GHG emissions by 40 percent below 1990 levels by 2030 and to achieve net carbon neutrality by 2045. Therefore, GHG impacts associated with the proposed project would be less than significant with mitigation incorporated.

Impact	Mitigation Measure	Significance After Mitigation
	external pedestrian circulation system to each building in the development ▪ If determined necessary by the City to mitigate the project impact, bus stop improvements must be provided. The City will consult with the local bus service providers in determining appropriate improvements. When locating bus stops and/or planning building entrances, entrances must be designed to provide safe and efficient access to nearby transit stations/stops ▪ Safe and convenient access from the external circulation system to bicycle parking facilities on-site e. The applicant/developer shall utilize electric lawn and gardening equipment for all landscaping activities f. The applicant/developer shall implement waste GHG emissions reduction actions by the following: ▪ Comply with all Mandatory Construction & Demolition (C&D) Recycling Program Requirements, including Section 18.67.100 ▪ Provide substantial storage, collection, and loading of recyclables in a manner that is convenient and safe for all users of the building. Ensure there are sufficient sizes and amount of collection containers for recyclables. Containers must be kept clean, be clearly labeled, and are co-located next to any other solid waste receptacles. Ensure sufficient pick up of collection containers to meet the needs of the occupants ▪ Provide proper storage, collection, and loading of organics in a manner that is convenient and safe for all users of the building. Ensure there are sufficient sizes of collection containers for organics. Containers must be kept clean, be clearly	

Impact	Mitigation Measure	Significance After Mitigation
	labeled, and are co-located next to any other solid waste receptacles. Ensure sufficient pick up of collection containers to meet the needs of the occupants ▪ The proposed project shall include space for multi-stream collection containers for both recycling and organics in any location where a solid waste container is traditionally housed. This includes both outdoor collection containers serviced by a waste hauler or indoor collection containers utilized by occupants. The proposed project must provide educational material and training to occupants and tenants in how to properly separate recyclables from all other solid waste and place recyclables in a separate container designated for recycling and organics ▪ Ensure that all occupants and tenants of the proposed project separate recyclables from all other refuse and place recyclables in a separate container designated for recycling and composting ▪ Ensure containers are audited annually to ensure proper service levels and to check for contamination. Report findings back to occupants within 30 days and to the City as requested ▪ Work with waste hauler to provide educational material to tenants at least on an annual basis ▪ Provide compliance data to the City as required for any current auditing program	
Hazards and Hazardous Materials		
Impact HAZ-1: Based on the findings of the Phase II Environmental Site Assessment, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.	None required.	Less than significant without mitigation.

Impact	Mitigation Measure	Significance After Mitigation
Impact HAZ-2: The proposed project is not included on a list of sites compiled pursuant to Government Code Section 65962.5 and therefore the proposed project would not create a significant hazard to the public or the environment by being located on a hazardous materials site. This impact would be less than significant.	None required.	Less than significant without mitigation.
Land Use and Planning		
Impact LU-1: The proposed project is consistent with SCAG'S RTP/SCS, The City of Long Beach General Plan Land Use Element, the West Long Beach Business Parks Planned Development Zone, the Los Angeles River Master Plan, Long Beach RiverLink Plan, and the Lower Los Angeles River Revitalization Plan. Therefore, the proposed project would not conflict with applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Impacts would be less than significant.	The proposed project would not conflict with applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. This impact would be less than significant, so mitigation is not required.	Less than significant without mitigation.
Noise		
Impact N-1: Construction of the proposed project would temporarily increase noise levels, potentially affecting nearby noise-sensitive land uses. The proposed project would also introduce new noise sources and contribute to increases in operational noise. The continued regulation of noise, consistent with the City Code and General Plan noise element policies, would minimize disturbance to adjacent land uses, and construction and operational stationary noise would not exceed standards. construction noise impacts would be less than significant.	None required.	Less than significant without mitigation.
Impact N-2: Construction of the proposed project would temporarily generate groundborne vibration, potentially affecting nearby land uses, but at levels well below applicable vibration damage thresholds. Operation of the proposed project would not result in substantial groundborne vibration and noise. This impact would be less than significant.	None required.	Less than significant without mitigation.
Public Services		
Impact PS-1: The proposed project would increase development intensity on the project site, however the site is already served by the LBFD, is consistent with the land use designation and zoning of the site and would be subject to review by the LBFD and all applicable regulations relating to fire protection. The proposed project would therefore not substantially affect the LBFD's service ratios, response times, or other performance objectives to the extent that it would require new or physically altered fire protection facilities. impacts would be less than significant.	None required.	Less than significant without mitigation.

Impact	Mitigation Measure	Significance After Mitigation
Impact PS-2: The proposed project would increase development intensity on the project site but the site is already served by the LBPD, is consistent with the land use designation and zoning of the site, and would be subject to review by the LBPD and all applicable regulations relating to police protection. The proposed project would therefore not substantially affect the LBPD's service ratios, response times, or other performance objectives to the extent that it would require new or physically altered police protection facilities. impacts would be less than significant.	None required.	Less than significant without mitigation.
Transportation		
Impact TRA-1: Based on an evaluation of applicable policy documents such as the RTP/SCS, Long Beach General Plan, and Long Beach Municipal Code, the proposed project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Impacts would be less than significant.	None required.	Less than significant without mitigation.
Impact TRA-2: The proposed project's Home-Based Work VMT would be less than the County's baseline Home-Based Work VMT, therefore, the proposed project would not conflict with CEQA Guidelines section 15064.3(b). impacts would be less than significant.	None required.	Less than significant without mitigation.
Impact TRA-3: The proposed project's driveways would be perpendicular to the public right-of-way and would be adequately spaced from existing intersections, and the proposed project would not introduce incompatible uses to the area. Therefore, the proposed project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Impacts would be less than significant.	None required.	Less than significant without mitigation.
Impact TRA-4: The proposed project's driveways would be perpendicular to the public right-of-way and would be adequately spaced from existing intersections, and the proposed project would not introduce incompatible uses to the area. Therefore, the proposed project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Impacts would be less than significant.	None required.	Less than significant without mitigation.

Impact	Mitigation Measure	Significance After Mitigation
Tribal Cultural Resources		
Impact TCR-1: The proposed project may cause a substantial adverse change in the significance of an unknown tribal cultural resource because earthmoving activities associated with the proposed project could expose previously undiscovered subsurface archaeological resources that may be considered tribal cultural resources and could be adversely affected by the project construction. Impacts would be Less than significant with mitigation.	**MM-TCR-1 Gabrieleño Band of Mission Indians—Kizh Nation (Kizh Nation) Tribal Consultation Measures** Prior to issuance of a grading permit for the project, the Permittee shall retain a Gabrieleño Band of Mission Indians—Kizh Nation (Kizh Nation) tribal monitor to provide Native American tribal monitoring of ground-disturbing activities. Ground-disturbing work requiring Native American tribal monitoring shall adhere to the following requirements established by the consulting Tribe: 1. Retain a Gabrieleño Band of Mission Indians—Kizh Nation Monitor Prior to Commencement of Ground-Disturbing Activities. A. The Permittee shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). "Ground-disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching. B. A copy of the executed monitoring agreement shall be submitted to the lead agency prior to whichever is earlier: the commencement of any ground-disturbing activity or the issuance of any permit necessary to commence a ground-disturbing activity.	Through the evaluation of unanticipated potential tribal cultural resources, should they be discovered, implementation of Mitigation Measures TCR-1 and TCR-2 would reduce impacts on tribal cultural resources to a less than significant level.

Impact	Mitigation Measure	Significance After Mitigation
	C. The monitor shall complete daily monitoring logs that provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Kizh Nation. Monitoring logs shall identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitoring logs shall be provided to the Permittee/lead agency upon written request to the Kizh Nation. D. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh Nation from a designated point of contact for the Permittee/lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh Nation to the Permittee/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh Nation TCRs. E. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh Nation monitor and/or the Kizh Nation archaeologist. The Kizh	

Impact	Mitigation Measure	Significance After Mitigation
	Nation shall recover and retain all discovered TCRs in the form and/or manner the Kizh Nation deems appropriate, in the Kizh Nation's sole discretion, and for any purpose the Kizh Nation deems appropriate, including for educational, cultural, and/or historic purposes. 2. Unanticipated Discovery of Human Remains and Associated Funerary Objects. A. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute. B. If Native American human remains and/or grave goods are discovered or recognized on the project site, then all construction activities shall immediately cease. Health and Safety Code Section 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and all ground-disturbing activities shall immediately halt and shall remain halted until the Coroner has determined the nature of the remains. If the Coroner recognizes the human remains to be those of a Native American or has reason to believe they are Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission, and Public Resources Code Section 5097.98 shall be followed. C. Human remains and grave/burial goods shall be treated alike per California Public Resources Code Sections 5097.98(d)(1) and (2).	

Impact	Mitigation Measure	Significance After Mitigation
	D. Construction activities may resume in other parts of the project site at a minimum of 200 feet away from discovered human remains and/or burial goods, if the Kizh Nation determines in its sole discretion that resuming construction activities at that distance is acceptable and provides the project manager express consent of that determination (along with any other mitigation measures the Kizh Nation monitors and/or archaeologist deems necessary) (*State CEQA Guidelines* Section 15064.5(f)). E. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods. Any historic archaeological material that is not Native American in origin (non-TCR) shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purposes. F. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance. 3. Procedures for Burials and Funerary Remains: A. As the Most Likely Descendant ("MLD"), the Koo-nas-gna Burial Policy shall be implemented. To the Kizh Nation, the term "human remains" encompasses more than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the preparation of the soil for burial, the burial of funerary objects with the	

Impact	Mitigation Measure	Significance After Mitigation
	deceased, and the ceremonial burning of human remains. B. If the discovery of human remains includes four or more burials, the discovery location shall be treated as a cemetery and a separate treatment plan shall be created. C. The prepared soil and cremation soils shall be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects. Cremations shall either be removed in bulk or by means as necessary to ensure complete recovery of all sacred materials. D. In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains shall be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard shall be posted outside of working hours. The Kizh Nation shall make every effort to recommend diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed. E. In the event preservation in place is not possible despite good faith efforts by the Permittee, before ground-disturbing activities may resume on the project site, the Permittee shall arrange a designated site	

Impact	Mitigation Measure	Significance After Mitigation
	location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects. F. Each occurrence of human remains and associated funerary objects shall be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony shall be removed to a secure container on site if possible. These items shall be retained and reburied within 6 months of recovery. The site of reburial/ repatriation shall be on the project site but at a location agreed upon between the Kizh Nation and the Permittee at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered. G. The Kizh Nation shall work closely with the project's qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Kizh Nation, documentation shall be prepared and shall include (at a minimum) detailed descriptive notes and sketches. All data recovery-related forms of documentation shall be approved in advance by the Kizh Nation. If any data recovery is performed, once complete, a final report shall be submitted to the Kizh Nation and the NAHC. The Kizh Nation does not authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains. **MM TCR-2 *Gabrieliño Tongva Indians of California (GTIOC) Tribal Consultation Measures*** Prior to issuance of a grading permit for the project, the Permittee shall retain a Gabrieliño Tongva Indians of California (GTIOC) tribal monitor to provide Native American tribal monitoring of	

Impact	Mitigation Measure	Significance After Mitigation
	ground-disturbing activities. Ground-disturbing work requiring Native American tribal monitoring shall adhere to the following requirements established by the consulting Tribe: 1. Gabrieliño Tongva Indians of California (GTIOC) Native American Monitor A. A qualified and certified indigenous tribal member of the Gabrieliño Tongva Indians of California (GTIOC) shall provide professional Native American Monitoring required for the ground-disturbing activity on the site. Ground disturbances including but not limited to the removal of asphalt/cement/slurry, trenching, boring, excavation, auguring, grubbing, tree removal, grading and drilling shall be monitored. The Tribal Monitor shall only be required on site when these ground-disturbing activities occur. B. The GTIOC monitor shall be responsible for observing all mechanical and hand labor excavations to include paddle scrappers, blade machines, front-end loaders, backhoe, boring and drill operations as well as hydraulic and electric chisels. Associated work using tools such as picks and other non-electric or gasoline tools that are not regarded as mechanical shall be monitored for their soil disturbances. C. Soils that are removed from the work site are considered culturally sensitive and are subject to inspection. These soils whether placed in a dump truck or spots piles are to be inspected. The monitor shall temporarily hold excavations until a determination is made on the sensitivity of the of the soil. If the soils are sensitive, an archaeological monitor shall verify the find and notify the site supervisor.	

Impact	Mitigation Measure	Significance After Mitigation
	D. The GTIOC monitor may make recommendations during the course of the project when a cultural area has been impacted. The GTIOC monitor shall be authorized to halt or redirect excavation activities to another area as an assessment is made. Both archaeological and GTIOC shall work together to ensure that the area is warranted as being culturally sensitive before a determination is made. Avoidance and directing an alternative route from this culturally sensitive area is highly recommended. E. Any artifacts associated within the site that are not associated with any burials are subject to collection by the designated archaeologist for purposes of data and information vital for their final report. The GTIOC monitor does not collect artifacts for any reason. Unauthorized removal of artifacts will jeopardize sites orientation and successful data recovery. Only a qualified archaeologist shall remove artifacts for their reports. The landowner shall work with the GTIOC monitor to ensure that a proper repository is established. A final report shall be issued to the cultural consultant by the archaeological company. F. It is the sole responsibility of the GTIOC monitor to provide the client with a written daily field report that includes photos of his/her accounting of the soil disturbances of the daily activities. This perspective of the daily activities by the GTIOC monitor shall enhance the information gathered by the field archaeologist. The daily report shall include observations the GTIOC visually observed on the project site at the beginning of each workday (i.e., weather conditions, overnight disturbances).	

Impact	Mitigation Measure	Significance After Mitigation
	2. Archaeological Survey A. If a culturally sensitive area is identified, an archaeological survey must be completed before any movement of soil (to include hand shoveling, grading or excavation) takes place. The survey must be conducted by a qualified archaeologist who is knowledgeable and experienced in working in the Gabrieliño Tongva geographical area. If an archaeologist has little or no experience in the Gabrieliño Tongva territory, a qualified, experienced Gabrieliño Tongva cultural consultant shall assist in the archaeological survey. 3. Treatment Plan for Human Discovery A. If any archaeological or paleontological, or cultural deposits, are discovered, including but not limited to skeletal remains and grave related artifacts, artifacts of traditional cultural, religious, or spiritual sites, or any other artifacts relating to the use or habitation sites, all construction shall cease within at least 50 feet of the discovery and halted until the proper authorities are contacted. Authorities, to include the county corner and law enforcement, shall evaluate and make a determination and a formal review of the find. The county coroner has the legal responsibility for determining whether or not the remains are native indigenous people. B. If it is established that the remains are of native indigenous people, the Native American Heritage Commission (NAHC) shall be contacted by the coroner under the California Health and Safety Code (Senate Bill 297, Chapter 1492, Statutes of 1982 and Section 7050.50). A Most Likely Descendant (MLD) shall be assigned by the NAHC to ensure the ancestor(s) is treated with dignity	

Impact	Mitigation Measure	Significance After Mitigation
	and respect (Public Resources Code Section 5097.98). A certified osteologist shall be retained to verify the human remains' authenticity and work to help remove the ancestor(s) from the site area with the discretion and advice of the MLD. The GTIOC monitor(s) assigned to the project shall assist the osteologist and archaeological monitors in the recovery process. The MLD shall determine where the ancestors shall be housed pending a final decision for the reinterment of the ancestor(s). 4. Recovery and Reburial Procedures A. Specific methods of recovery and reburial procedures have been developed and adopted by the Gabrieliño Tongva Indians of California and are required to adhere to when recovering Gabrieliño Tongva remains. Conditions may arise where altering some of these guidelines shall be considered. Consultation with the MLD and the GTIOC monitor(s) assigned to the site should then be scheduled to determine other procedures that may be acceptable to the Gabrieliño Tongva Nation. Excavation: 1. Consultation between the MLD and the archaeological firm must take place before the recovery of the remains and during the process of extraction. 2. A 50-foot perimeter for each uncovered burial shall be required to safeguard further destruction until the area is examined for additional remains and associated grave goods. 3. In the event blade machines are operating in an adjacent area, a maximum of 2- inch cuts or less shall be permitted in all cultural areas. 4. If more than one area is being excavated for extraction of remains simultaneously, an	

Impact	Mitigation Measure	Significance After Mitigation
	additional GTIOC must be required. Each excavated burial shall be monitored exclusively. 5. Wooden tools are preferred for the process of recovery; electric chisels and other power tools should be avoided. 6. If remains are pedestaled, they shall be placed on plywood for removal. If remains cannot be pedestaled due to soil conditions, remains shall be carefully placed in cloth bags. 7. Soils adjacent to burials shall be saved for reburial in plastic containers. 8. No photography (both film and digital) or video is allowed to be taken of the remains or the site. Drawings of remains are permitted to retain the orientation of the ancestors for reinterment purposes only. Coroner photographs of the remains may not be published for any purpose. Testing: 1. DNA testing cannot be undertaken. 2. No invasive testing which would compromise the integrity of the remains is permitted. 3. Macroscopic analysis is permitted. 4. Any associated grave goods (such as shell) may be used for dating purposes of each burial. 5. When remains are unearthed, 1-foot X 1-foot test pits will be allowed to establish the extent of the burial area when necessary. 6. All windrows within a 50-foot area must be screened (either wet or dry). Storage: 1. Natural cotton bags and sheeting or cotton drop cloths shall be used to store remains until the time of reinterment. Deer or other native hides may be used to cover the bagged and wrapped remains until the reburial and may become the burial wrapping. 2. Bone fragments are also subject to be bagged in cotton.	

Impact	Mitigation Measure	Significance After Mitigation
	3. Until the scope of the project is completed, storage of ancestors shall be done in close proximity to the location of excavation or a protected area must be provided by the landowner or archaeologist. Reburial: 1. Efforts shall be made to keep the remains within the same location or in close proximity to the removal site as possible. It is preferable to repatriate the remains within a 0.50-mile radius of the original grave site. If it is not possible to identify a proper location within the 0.50-mile radius, a secure location will be valued over distance. 2. If the preponderance of remains is uncovered in or excavated from one area, the reinterment should be in that area. 3. The reburial site should offer the best long-term protection against any additional disturbances. 4. Each reburial requires approximately 4 feet X 5.5 feet when fully articulated and should be at a depth of 6–10 feet. The purpose of this depth is to ensure difficulty in disturbing the reburial and to allow adequate room for capping if necessary. 5. Any isolated bone fragments uncovered on site may be buried together in an individual burial pit with indigenous animal skins, seaweed, or the cotton cloth used for all bagged fragments. 6. All associated grave goods and artifacts along with soils shall be buried together with the ancestors. 7. No drawings of any other images of ancestral remains may be used for publication without consultation and the approval of the GTIOC monitors and appointed MLD for the site. Costs: 1. The landowner(s) shall be responsible for all costs related to the proper storage and reburial of remains excavated on their property to	

Impact	Mitigation Measure	Significance After Mitigation
	include all burial materials as required in these procedure guidelines. 2. The landowner(s) shall be financially responsible for providing reburial plots that are acceptable by the MLD.	
Utilities and Service Systems		
Impact UTIL-1: The proposed project would increase demand for water, electric power, natural gas, telecommunications, and stormwater drainage; however, no relocation or construction of utility services would be required to service the project beyond connections to existing utilities. Impacts would be less than significant.	None required.	Less than significant without mitigation.
Impact UTIL-2: The proposed project would increase demand for water; however, City water supplies would be sufficient to serve the proposed project and reasonably foreseeable future development in normal, dry, and multiple dry years. Impacts would be less than significant.	None required.	Less than significant without mitigation.

1 Introduction

This document is an Environmental Impact Report (EIR) for the proposed project, which consists of construction of a new 60-foot-tall, 517,437 square foot (sf) combination warehouse and distribution center with accessory offices at 4000 Via Oro Avenue on two parcels on 26.47 gross acres (26.34 net acres) in the City of Long Beach. The proposed Intex Corporate Office and Fulfillment Center Project (hereafter referred to as the "proposed project" or "project") would be constructed on a currently undeveloped site. The proposed project would also involve street vacation of Via Alcalde Avenue. This right-of-way, once vacated, would become part of the site to be used for vehicle and truck parking and for on-site truck turning and maneuvering. The project site would be developed with 570 parking stalls and 174 loading/trailer parking spaces, all in an open surface parking field.

This section discusses (1) the project and EIR background; (2) the legal basis for preparing an EIR; (3) the scope and content of the EIR; (4) issue areas found not to be significant by the Initial Study; (5) the lead, responsible, and trustee agencies; and (6) the environmental review process required under the California Environmental Quality Act (CEQA). The proposed project is described in detail in Section 2, *Project Description*.

1.1 Environmental Impact Report Background

The City of Long Beach distributed a Notice of Preparation (NOP) of the EIR for a 30-day agency and public review period starting on April 14, 2023 and ending on May 15, 2023. In addition, the City held an EIR Scoping Meeting on May 3, 2023. The purpose of the meeting was to provide information about the CEQA process and information regarding the proposed project to members of public agencies, interested stakeholders and residents/community members. The meeting was held virtually on Zoom, which was accessible by phone or direct link to the webinar. The City received letters from seven agencies in response to the NOP during the public review period. The NOP is presented in Appendix B of this EIR, along with the Initial Study that was prepared for the project and the NOP responses received. Table 1-1 on the following page summarizes the content of the letters and verbal comments and where the issues raised are addressed in the EIR.

1.2 Purpose and Legal Authority

The proposed project requires the discretionary approval of the City of Long Beach Planning Commission; therefore, the project is subject to the environmental review requirements of CEQA. In accordance with Section 15121 of the *CEQA Guidelines* (California Code of Regulations, Title 14), the purpose of this EIR is to serve as an informational document that:

> "...will inform public agency decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project."

This EIR has been prepared as a project EIR pursuant to Section 15161 of the *CEQA Guidelines*. A Project EIR is appropriate for a specific development project. As stated in the *CEQA Guidelines*:

"This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project, including planning, construction, and operation."

This EIR is to serve as an informational document for the public and City of Long Beach decision makers. The process will include public hearings before the Planning Commission to consider certification of a Final EIR and approval of the proposed project.

Table 1-1 NOP Comments and EIR Response

Commenter	Comment/Request	Where It Was Addressed
Agency Comments		
California Department of Justice, Bureau of Environmental Justice	Raises concern for air quality, traffic, and noise impacts and suggests the use of best practices and mitigation measures when drafting the EIR.	Comments are addressed in Section 4.1, *Air Quality*, Section 4.6, *Greenhouse Gas Emissions*, Section 4.9, *Noise*, and *Section* 4.11, *Transportation*.
California Department of Transportation (Caltrans)	Encourages incorporation of multi-modal and complete street transportation elements that promote alternatives to car use.	Comments are addressed in Section 4.11, *Transportation*.
	Encourages implementation of complete streets and pedestrian safety measures such as road diets and other traffic calming measures to reduce VMT and GHGs.	
	Encourages evaluation of the potential of Transportation Demand Management (TDM) strategies and Intelligent Transportation System (ITS) applications to manage the transportation network.	
	Recommends the inclusion of a queuing analysis with actual signal timing for existing traffic conditions plus project trips at the impacted off-ramps on Freeway 405 and Freeway 710.	
	Encourages the preparation of a traffic safety impact analysis using Caltrans guidelines so California can reach zero fatalities and serious injuries by 2050.	
Los Angeles County Sanitation Districts (LACSD)	Wastewater flow from the project will be treated at the Joint Water Pollution Control Plant in the City of Carson and the expected wastewater flow from the project is 16,491 gallons per day. Districts are to charge a fee to connect facilities to the Districts' Sewerage System or to increase the strength/quantity of wastewater discharged from connected facilities.	Comments are addressed in Section 4.13, *Utilities and Service Systems*.
	Advises available capacity of the Districts' treatment facilities will be limited to levels associated with the approved growth identified by SCAG.	

Commenter	Comment/Request	Where It Was Addressed
Long Beach Unified School District (LBUSD)	Expresses concern with traffic from truck trips between ports and warehouse and asks for shipping route information as it relates to school sites to confirm that it will not impact school traffic during critical drop off and pick up times.	This is addressed in Section 4.11, *Transportation* of the EIR.
	Requests confirmation that trucks will be fitted with reduced emissions capabilities as required by the ports.	Addressed in Section 4.1, *Air Quality* of the EIR.
Metropolitan Water District of Southern California (MWD)	Expresses concern with potential impacts to Metropolitan-owned facilities within and adjacent to Project Limits.	This is addressed in Section 4.13, *Utilities and Service Systems* of the EIR.
	Requests maintenance of its right-of-way and access to facilities and properties at all times by requiring design within the Metropolitan area be submitted for review and written approval.	
	Encourages water conservation measures	Addressed in Section 10, *Hydrology and Water Quality* of the Initial Study (Appendix B) and further discussed in the EIR.
Native American Heritage Commission (NAHC)	States that the proposed project is subject to the requirements and provisions under Assembly Bill (AB 52) for tribal cultural resources.	Consultation required by AB 52 was carried out by the City of Long Beach. This process and its outcomes are discussed in Section 4.12, *Tribal Cultural Resources*, of this EIR.
South Coast Air Quality Management District (SCAQMD)	Recommends use of CEQA Air Quality Handbook for guidance in preparing air quality analysis and use CalEEMod for analysis.	Further analysis in Section 4.1, *Air* Quality of the EIR discusses air quality impacts and CalEEMod calculations.
	Requests construction-related and operation-related air quality analysis, including impacts from indirect sources.	
	Requests calculation of regional and localized air quality impacts and comparison to SCAQMD thresholds.	
	Requests mitigation measures to minimize or eliminate significant adverse impacts to air quality.	
	Raises concern about potential health impacts of siting warehouses within close proximity of sensitive land uses for residents living in surrounding communities.	

1.3 Scope and Content

This EIR addresses impacts identified by the Initial Study to be potentially significant. The following issues were found to include potentially significant impacts and have been studied in the EIR:

- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Land Use/Planning
- Noise
- Public Services
- Transportation
- Tribal Cultural Resources
- Utilities and Services Systems

In preparing the EIR, use was made of pertinent City policies and guidelines, certified EIRs and adopted CEQA documents, and other background documents. A full reference list is contained in Section 7, *References and Preparers*.

Section 6, *Alternatives* of the EIR was prepared in accordance with Section 15126.6 of the *CEQA Guidelines* and focuses on alternatives that are capable of eliminating or reducing significant adverse effects associated with the project while feasibly attaining most of the basic project objectives. In addition, the alternatives section identifies the "environmentally superior" alternative among the alternatives assessed. The alternatives evaluated include the CEQA-required "No Project" alternative and three alternative development scenarios for the project area.

The level of detail contained throughout this EIR is consistent with the requirements of CEQA and applicable court decisions. Section 15151 of the *CEQA Guidelines* provides the standard of adequacy on which this document is based. The *Guidelines* state:

> *"*An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of the proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good faith effort at full disclosure."

1.4 Issues Not Studied in Detail in the EIR

Table 1-2 summarizes issues from the environmental checklist that were addressed in the Initial Study (Appendix B). As indicated in the Initial Study, there is no substantial evidence that significant impacts would occur in any of these issue areas.

Table 1-2 Issues Not Studied in the EIR

Issue Area	Initial Study Findings
Aesthetics	*Scenic Vistas:* The project site and surrounding area is flat. There are no scenic vistas that can be viewed from the project site or scenic vistas that would be obstructed by the project. Development of the proposed project would not obstruct public views of scenic vistas because no scenic vistas are available in the project site vicinity, and the project site is not part of, and would not block views towards, any scenic vista. No impact to scenic vistas would occur. *Scenic Resources:* The project site is devoid of scenic features such as scenic trees, rock outcroppings, and historic resources. Development of the project would not result in the obstruction of public views of cultural or historical, or scenic resources on the project site or in the project site vicinity. No impact to scenic resources would occur. *Visual Character and Quality:* The proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings. *Light and Glare:* The proposed project would not create significant impacts with respect to increased lighting. The proposed project would include similar sources as existing sources of light and glare on the project site including structural lighting, street lighting, and reflective surfaces on parked cars and building exteriors. The project would be required to comply with all development and design standards, including provisions for materials, of Division II of Chapter 21.33 of the LBMC. Additionally, lighting would be reviewed through the City's Site Plan Review process, as described in Division V of Chapter 21.25—Site Plan Review of the LBMC. It is a typical City condition of approval for large projects to incorporate full cutoff/BUG[1]-rated exterior lighting and that is expected to be a condition of approval for this project as well. Impacts would be less than significant.
Agricultural Resources	The project site is within an urbanized area of Long Beach that lacks agricultural lands or forests. No impact to these resources would occur.
Hydrology and Water Quality	*Water Quality Standards, Waste Discharge Requirements, Surface or Groundwater Quality, and Groundwater Recharge:* Conformance with Section 402 of the Clean Water Act (CWA) and the LBMC would ensure that the proposed project does not violate any water quality standards or waste discharge requirements, substantially degrade surface or groundwater quality, or interfere with groundwater recharge. Impacts would be less than significant.
	Aquifer and Groundwater Depletion: The proposed project would not result in a net deficit in aquifer volume, lowering of the groundwater table, an exceedance of safe yield, or a significant depletion of groundwater supplies. Water services will be provided by the Long Beach Utilities Department (LBUD), which primarily relies upon groundwater extracted locally from the Central Basin to meet customer water demands, as well as purchasing imported water from the Metropolitan Water District (MWD) to make up the difference between demand and groundwater supplies. According to the Urban Water Management Plan (UWMP), the LBUD currently has adequate supplies and mitigation and emergency plans (UWMP 2022). Furthermore, the proposed use of this site is consistent with its land use designation and is therefore accounted for, at a macro level, by the provider's UWMP. Impacts would be less than significant.
	Drainage: The applicant would be required to comply with the LBMC Chapter 18.74, which requires the implementation of BMPs. The BMPs applied during project construction would prevent sediment flow into a water source. These construction and erosion control practices would reduce the potential for adverse effects caused by excavation and general construction. The project would be required to comply with Chapter 18.74 of the Long Beach Municipal Code (LBMC), which requires implementation of standard construction BMPs to avoid or minimize temporary adverse effects such as erosion and siltation. Compliance with the LBMC and LID requirements would reduce potential impacts to a less than significant level. The project site is nearly level. Development of the proposed project would not introduce new surface water discharges as there are already structures on the project site, would not substantially increase runoff volumes, and would not result in flooding on- or off-site. Impacts would be less than significant.

[1] BUG stands for Backlight, Uplight, and Glare (First Light Technologies, 2023)

Issue Area	Initial Study Findings
	FEMA Flood Zones: The Federal Emergency Management Agency (FEMA) classifies the City of Long Beach under Flood Zone X, which refers to an area with reduced flood risk due to levees. Impacts would be less than significant.
	Flood Hazard, Tsunami, or Seiche Zones: The project site is located approximately six miles from the coast of the Pacific Ocean and is not near any inland bodies of water. The risk of a tsunami is negligible due to the distance from the Pacific Ocean. The project site is flat and surrounded by residential and commercial development away from crests and very steep ridges that would be subject to mudflow events. Therefore, the project site is not located in a hazard area for tsunami, seiche, and mudflow. Impacts would be less than significant.
Mineral Resources	The project involves development of a vacant site that was once used for agricultural purposes and is located in an urbanized area of Long Beach. No mineral resources of value to the region or the residents of the state have been identified within the project area and the project area is not suited for resource extraction given the urban location. No impact would occur.
Population and Housing	*Population Growth:* The proposed project would involve the development of a warehouse and office building. The office building would not include any residences and would not generate population growth. No impact would occur.
	Displacement of People or Housing: There are no housing units on the project site or people residing on the project site in any form of temporary housing. Therefore, the project would not displace any existing housing units or people. No impact would occur.
Recreation	*Increased Use of Parks:* Use of parks for recreational purposes is not typical for a warehouse and office use. In the event that employees would use parks, it would likely be for passive activities, such as meditation or relaxation, or as a space to eat lunch. Impacts from the proposed project would be less than significant.
	Include or Require Construction of Recreational Facilities: The proposed project does not include recreational facilities. The project applicant would be required to pay the City's Park and Recreation Facilities Construction Tax, pursuant to BHMC Section 3-1-703. Impacts would be less than significant.
Wildfire	*Wildfire Emergency Response Plans:* There are no undeveloped wildland areas near the project site. The project would not impair nor conflict with the implementation of wildfire emergency response plans. Impacts would be less than significant.
	Exposure to wildfire risk: The project site is not in a Very High Fire Hazard Severity Zone as mapped by the State, nor is it adjacent to vegetated or hillside areas where slopes or runoff issues from post-fire related hazards are a potential hazard. The project would not expose people or structure to significant risks involving wildfires. Impacts would be less than significant.
	Infrastructure that may Exacerbate Wildfire Risk: The project includes the development of a warehouse/distribution facility with associated office support and would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk. Impacts would be less than significant.

1.5 Lead, Responsible, and Trustee Agencies

The *CEQA Guidelines* define lead, responsible and trustee agencies. The City of Long Beach is the lead agency for the project because it holds principal responsibility for approving the project.

A responsible agency refers to a public agency other than the lead agency that has discretionary approval over the project. A trustee agency refers to a state agency having jurisdiction by law over natural resources affected by a project. No responsible or trustee agencies have been identified for the proposed project.

1.6 Environmental Review Process

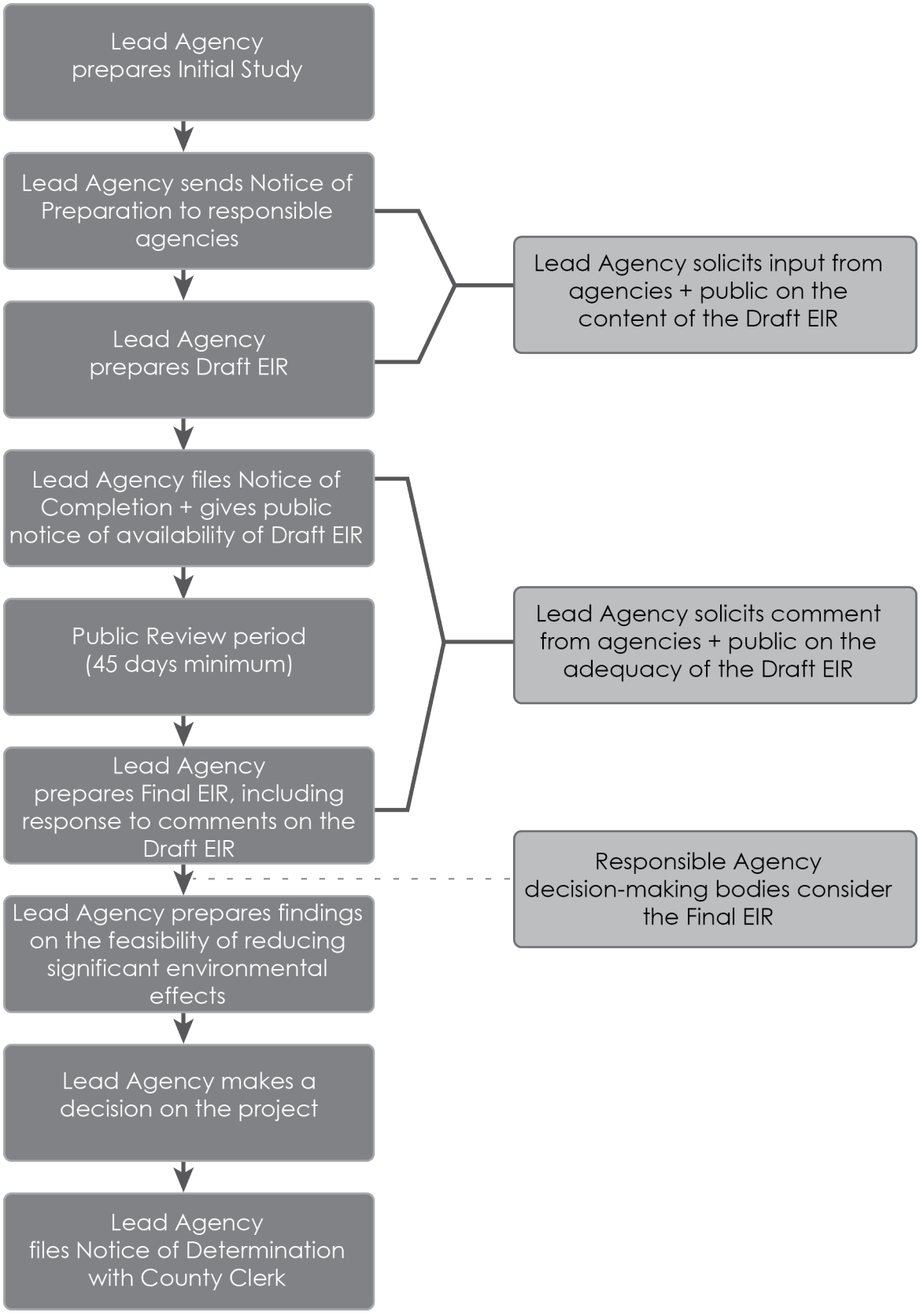
The environmental impact review process, as required under CEQA, is summarized below and illustrated in Figure 1-1. The steps are presented in sequential order.

1. **Notice of Preparation (NOP) and Initial Study**. After deciding that an EIR is required, the lead agency (City of Long Beach) must file an NOP soliciting input on the EIR scope to the State Clearinghouse, other concerned agencies, and parties previously requesting notice in writing (*CEQA Guidelines* Section 15082; Public Resources Code Section 21092.2). The NOP must be posted in the County Clerk's office for 30 days. The NOP may be accompanied by an Initial Study that identifies the issue areas for which the project could create significant environmental impacts.
2. **Draft EIR Prepared.** The Draft EIR must contain: a) table of contents or index; b) summary; c) project description; d) environmental setting; e) discussion of significant impacts (direct, indirect, cumulative, growth-inducing and unavoidable impacts); f) a discussion of alternatives; g) mitigation measures; and h) discussion of irreversible changes.
3. **Notice of Completion (NOC).** The lead agency must file an NOC with the State Clearinghouse when it completes a Draft EIR and prepare a public Notice of Availability of a Draft EIR. The lead agency must place the NOC in the County Clerk's office for 30 days (Public Resources Code Section 21092) and send a copy of the NOC to anyone requesting it (*CEQA Guidelines* Section 15087). Additionally, public notice of Draft EIR availability must be given through at least one of the following procedures: a) publication in a newspaper of general circulation; b) posting on and off the project site; and c) direct mailing to owners and occupants of contiguous properties. The lead agency must solicit input from other agencies and the public and respond in writing to all comments received (Public Resources Code Sections 21104 and 21253). The minimum public review period for a Draft EIR is 30 days. When a Draft EIR is sent to the State Clearinghouse for review, the public review period must be 45 days unless the State Clearinghouse approves a shorter period (Public Resources Code 21091).
4. **Final EIR.** A Final EIR must include: a) the Draft EIR; b) copies of comments received during public review; c) list of persons and entities commenting; and d) responses to comments.
5. **Certification of Final EIR.** Prior to making a decision on a proposed project, the lead agency must certify that: a) the Final EIR has been completed in compliance with CEQA; b) the Final EIR was presented to the decision-making body of the lead agency; and c) the decision making body reviewed and considered the information in the Final EIR prior to approving a project (*CEQA Guidelines* Section 15090).
6. **Lead Agency Project Decision.** The lead agency may a) disapprove the project because of its significant environmental effects; b) require changes to the project to reduce or avoid significant environmental effects; or c) approve the project despite its significant environmental effects, if the proper findings and statement of overriding considerations are adopted (*CEQA Guidelines* Sections 15042 and 15043).
7. **Findings/Statement of Overriding Considerations**. For each significant impact of the project identified in the EIR, the lead agency must find, based on substantial evidence, that either: a) the project has been changed to avoid or substantially reduce the magnitude of the impact; b) changes to the project are within another agency's jurisdiction and such changes have or should be adopted; or c) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible (*CEQA Guidelines* Section 15091). If an agency approves a project with unavoidable significant environmental effects, it must prepare a written Statement of

Overriding Considerations that sets forth the specific social, economic, or other reasons supporting the agency's decision.

8. **Mitigation Monitoring Reporting Program.** When the lead agency makes findings on significant effects identified in the EIR, it must adopt a reporting or monitoring program for mitigation measures that were adopted or made conditions of project approval to mitigate significant effects.
9. **Notice of Determination (NOD).** The lead agency must file an NOD after deciding to approve a project for which an EIR is prepared (*CEQA Guidelines* Section 15094). A local agency must file the NOD with the County Clerk. The NOD must be posted for 30 days and sent to anyone previously requesting notice. Posting of the NOD starts a 30-day statute of limitations on CEQA legal challenges (Public Resources Code Section 21167[c]).

Figure 1-1 Environmental Review Process



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2 Project Description

This section describes the proposed project, including the project proponent, project location, site characteristics, project characteristics, project objectives, and required approvals needed for implementation of the proposed project.

2.1 Project Proponent

Jeffrey Pierson
Unitex Management Corp.
Intex Properties Corp.
4001 Via Oro Avenue
Long Beach, California 90810

2.2 Lead Agency Contact Person

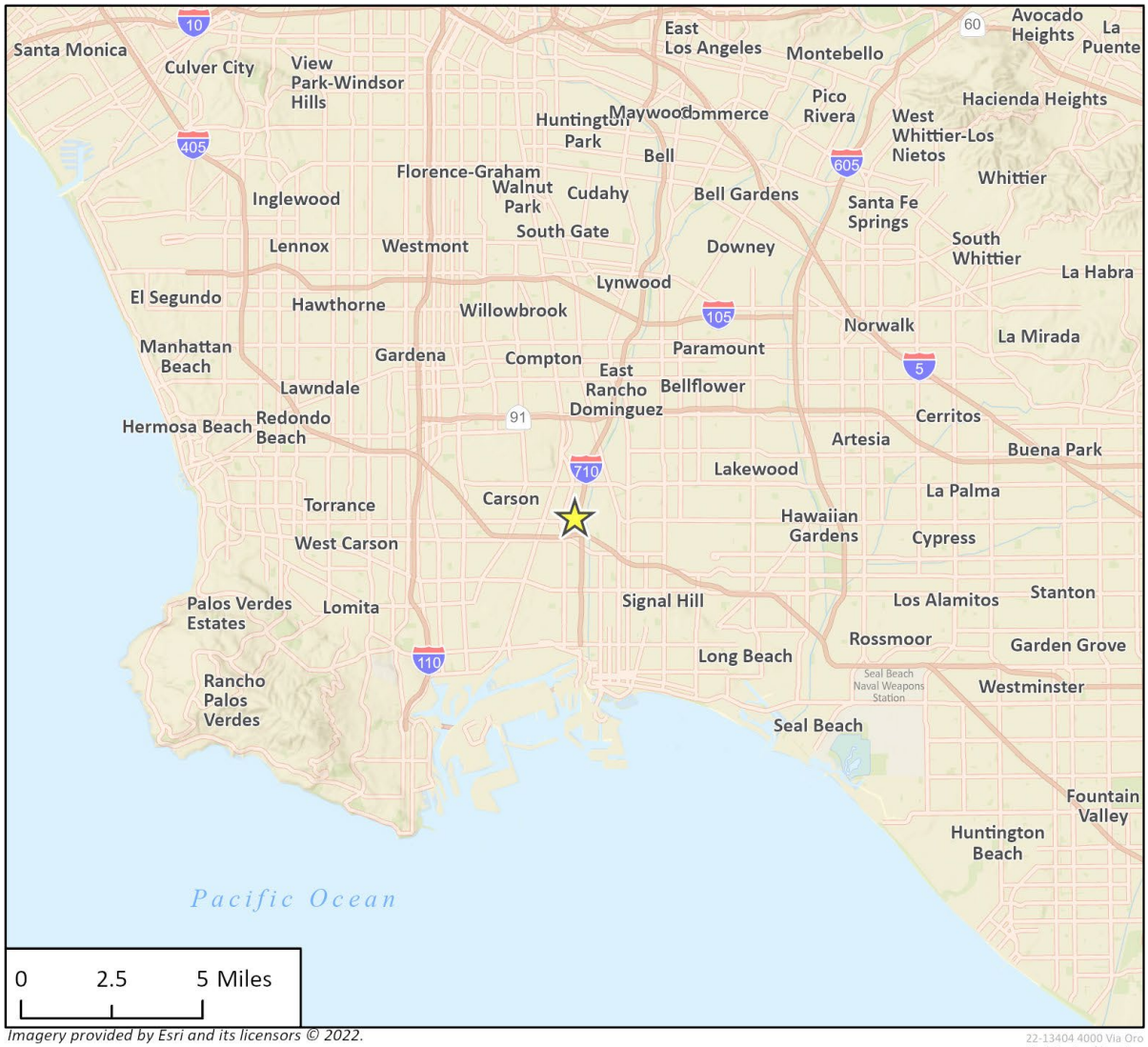
Consistent with *CEQA Guidelines* Section 15050, the City is the Lead Agency under CEQA, and is responsible for adoption of the environmental document and approval of the proposed project.

Scott Kinsey, AICP, Planner V
Long Beach Development Services, Planning Bureau
411 West Ocean Boulevard, 3rd Floor
Long Beach, California 90802
Phone: (562) 570-6194
Via email: Scott.Kinsey@longbeach.gov

2.3 Project Location

The 26.47-acre project site is located on a vacant property directly across Via Oro Avenue from the current Intex Recreation Corporation building at 4001 Via Oro Avenue in the City of Long Beach (shown in Photograph 2 of Figure 2-6). Most of the project site is an open field containing grasses and dirt, but there are also landscaping trees around the boundaries of the site, and the project site also encompasses parts of Via Alcalde Avenue. The project site contains a former oil/gas well that was abandoned and plugged in 1944. The site was also historically used for agriculture and, more recently, for flying remote control helicopters. The parcels on which the project site is located have Assessor Parcel Numbers (APNs) of 7310-015-034, 7310-015-019, and 7310-015-023. APN 7310-015-034 has a main address of 4000 Via Oro Avenue and secondary addresses of 4036 Via Oro Avenue, 4001 Via Alcalde Avenue, 4053 Via Alcalde Avenue, and 4059 Via Alcalde Avenue; APN 7310-015-019 has an address of 4048 Via Oro Avenue; and APN 7310-015-023 is unaddressed. The site is bounded by West Carson Street to the south, the Long Beach Freeway (Interstate 710, or I-710) to the east, Via Oro Avenue to the west, and West Via Plata Street to the north. The project site is regionally accessible from I-710 and the San Diego Freeway (Interstate 405, or I-405). Figure 2-1 shows the location of the project site in the region, Figure 2-2 shows the location of the project site in its neighborhood context, and Figure 2-3 shows recent photographs of the project site.

Figure 2-1 Regional Location



Imagery provided by Esri and its licensors © 2022.

22-13404 4000 Via Oro
Fig 1 Regional Location

Project Location

N

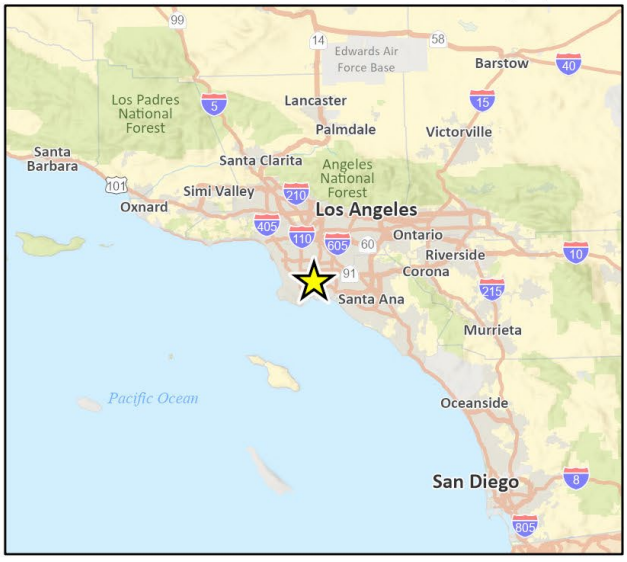


Figure 2-2 Project Location

Imagery provided by Microsoft Bing and its licensors © 2022.

22-13404 4000 Via Oro
Fig 2 Project Location

Figure 2-3 Project Site Photographs

Photograph 1. Overview of the project site, looking north from southeast part of project site.

Photograph 2. Overview of the project site, looking south from northeast part of project site.

2.4 Land Use Designation and Zoning

The project site is in the "I" (Industrial) Place Type of the City's newly adopted (December 2019) General Plan Land Use Element and is located on "Ownership Parcel B" in Subarea I of the West Long Beach Business Parks Planned Development District (PD-26).

Uses permitted in PD-26 include manufacturing of various products, industrial activities, service and repair, storage, transportation, communications, utilities and public services, retail, administrative or professional offices, and a variety of similar services typically found in a business center. The project site is currently vacant and undeveloped.

2.5 Description of Project

2.5.1 Project Description

The proposed project includes the construction of a new 60-foot-tall, 517,437 square foot (sf) combination warehouse and distribution center with accessory offices. The currently undeveloped project site encompasses two parcels on 26.47 gross acres (26.34 net acres). Goods would be imported via the nearby Port of Los Angeles and Port of Long Beach, sorted and stored on-site, and then distributed nationally from the project site. Table 2-1 summarizes the components of the proposed project.

The project site would be developed with 570 parking stalls and 174 loading/trailer parking spaces, all in an open surface parking field. Access to the project site would be via five driveways: one 40-foot-wide driveway at each of the proposed cul-de-sacs on Carson Street and West Via Plata Street providing access to the loading docks and other areas on the eastern side of the property; two 28-foot-wide driveways providing access to the western side of the property from Via Oro Avenue; and one 28-foot-wide driveway providing access to the southern side of the property from Carson Street. All solid waste would be stored in trash enclosures with recycle bins that would be locked when not in use. The proposed project would include signage posted around the project site to indicate entrances and activity nodes, prohibit loitering and trespassing, and warn of surveillance on the site. The proposed project would also include security cameras dispersed throughout the project site. The proposed project site plan is shown in Figure 2-4.

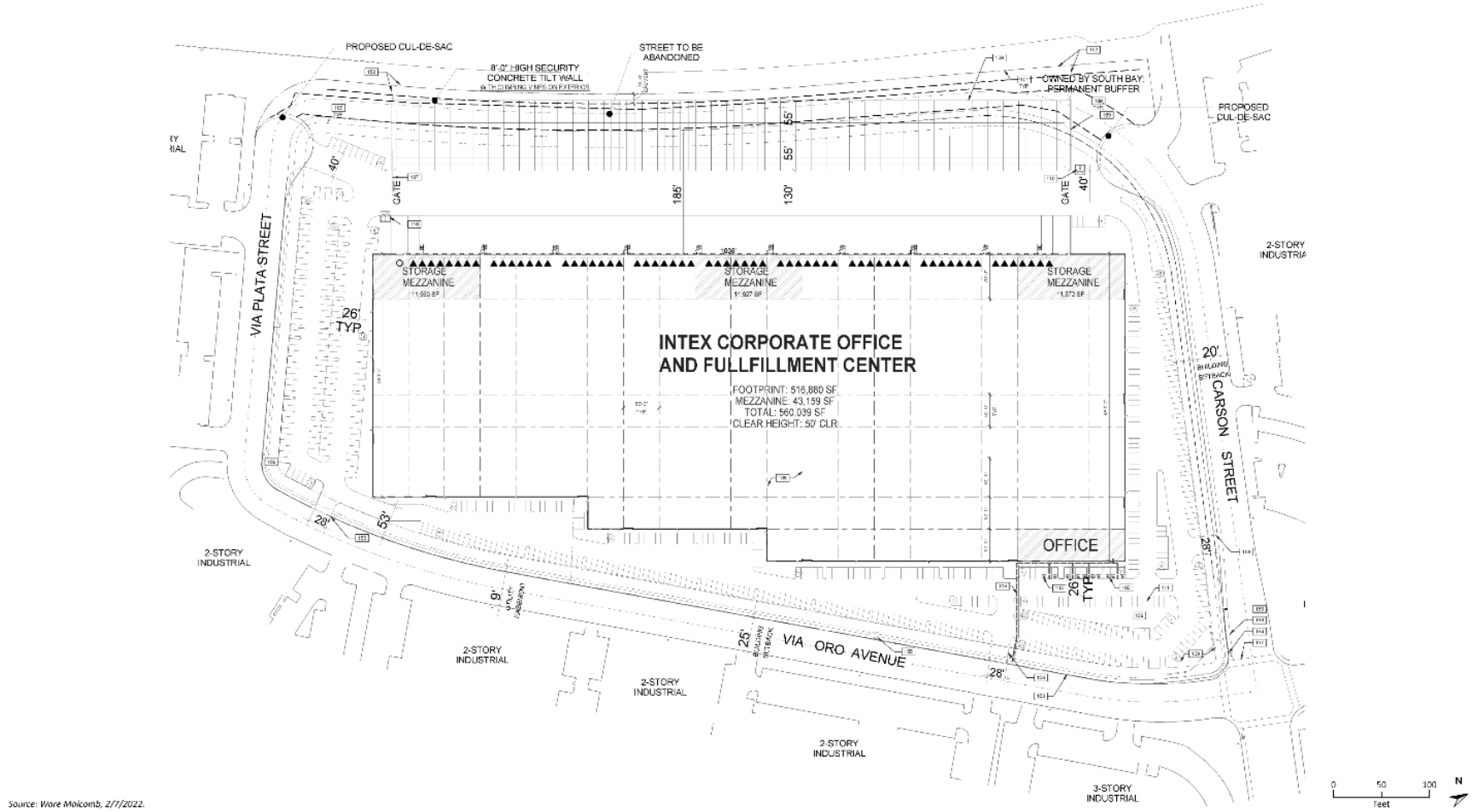
Table 2-1 Project Summary

Lot and Development Summary	
Lot Summary	
Total Lot Area	1,153,019 sf (26.47 ac)
Building Area and Coverage	
Building Area (Net)	560,039 sf
Footprint	517,880 sf (45% site coverage)
Mezzanine	42,159 sf
Floor Area Ratio (FAR), Gross	0.49
Building Use	
Warehouse	543,239 sf
Office	16,800 sf

Required Parking	
Warehouse	508 stalls
Office	52 stalls
Required Accessible	11 stalls
Total	**560 stalls**
Proposed Parking	
Auto	570 stalls
Proposed Accessible	10 stalls[1]
Trailer	174 stalls
Truck Docks	
Dock-High Doors	64
Grade-Level Doors	2
Development Standards	
Zoning	
West Long Beach Business Parks Planned Development District (PD-26)	
Building Setbacks	
Front	20 feet
Side	20 feet
Rear	20 feet
Off-Street Parking	
Standard	8.5 feet x 18 feet
Compact	8 feet x 15 feet
Drive Aisle	24 feet
Required Parking Ratio By Use	
Warehouse	1/1,000 sf
Office (Less than 25% of Total)	1/1,000 sf
Tree Calculations	
Parking Lot Trees Required (1 tree/4 parking spaces)	143
Parking Lot Trees Provided	138[2]
Street Trees Required (1 tree/25 lin. ft. of street frontage)	110
Street Trees Provided	103

[1] These 10 accessible stalls are included in the total of 570 stalls. Compliance with accessible parking requirements will be subject to regulatory compliance at the time of building permit application, as determined by the City of Long Beach Building and Safety Bureau.
[2] Compliance with parking lot landscaping and street tree requirements will be subject to regulatory compliance with Chapter 21.42 (Landscaping Standards) of the City's Zoning Regulations at the time of building permit application, and per project conditions of approval, as determined by the Director of Development Services.

Figure 2-4 Project Site Plan



Source: Ware Malcomb, 2/7/2022.

2.5.2 Via Alcalde Avenue Street Vacation

A major component of the proposed project is the requested street vacation of Via Alcalde Avenue. This right-of-way, once vacated, would become part of the site to be used for vehicle and truck parking and for on-site truck turning and maneuvering. A year-long effort by the project applicant and the City's Public Works Department in conjunction with Caltrans and Metro (LACMTA) has resulted in a determination that the vacation would be feasible and satisfactory to all parties involved.

2.5.3 Landscaping

Under the proposed project, a variety of trees and shrubs would be added to the project site. One parking lot tree is required for every four parking stalls and one street tree is required for every 25 feet of street frontage. According to the project site plan shown in Appendix O, a total of 103 street trees would be located in the public right of way on all sides of the project site and 138 parking lot trees would be dispersed throughout the site. The proposed project landscaping plan is shown in Figure 2-5. The Arborist Report and Tree Protection Plan completed for the proposed project in March 2023 by Rincon Consultants (Appendix B of this EIR) estimated that there are 207 trees on the project site (including 168 trees in the public right-of-way and 39 trees within the privately-owned project site) and that the proposed project would require removal of 139 trees within the project site, while retaining 39 trees with minor impacts, and one tree with a major impact. Table 2-2 includes a breakdown of the total number of trees (including both street trees and trees on the project site) under both existing and proposed project conditions, and the estimated net change in the total number of trees from existing to proposed conditions. Potential impacts to trees are described in more detail in Section 4.2, *Biological Resources*.

Table 2-2 Net Change in Landscaping Trees

	Existing Conditions[1]	Proposed Project Conditions[2]	Net Change
Street Trees	168	103	-65
On-Site Trees	39	138	99
Total Trees	**207**	**241**	**34**

[1] Source: Rincon Arborist Report and Tree Protection Plan (Appendix B)

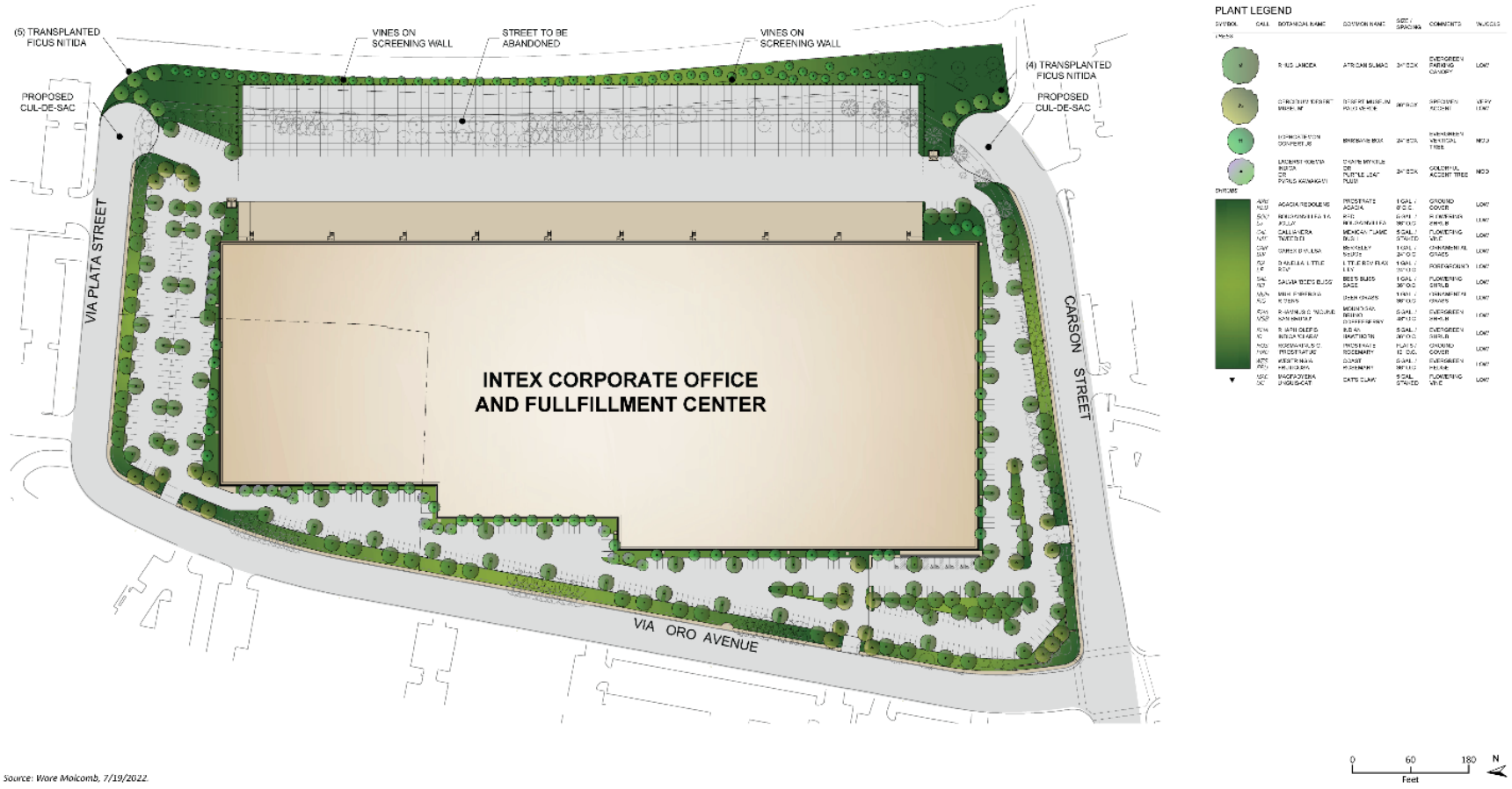
[2] Source: Project Site Plan (Appendix O)

2.5.4 Utilities

There currently is no natural gas service provided at the project site. As further described in Section 2.8.1, *Conditions of Approval*, the proposed project is required to incorporate full carbon/electricity generation offset by including solar panels. This would preclude the use of natural gas for operation of the proposed project. The proposed project would connect to existing electrical lines operated by Southern California Edison. Water and sewer services would be provided by the Long Beach Utilities Department[1].

[1] Gas service was formerly provided by the Long Beach Energy Resources Department; and water, reclaimed water, and sewer service were provided by Long Beach Water Department; but as a result of a recent City Charter amendment these departments have been combined and are now known as the Long Beach Utilities Department.

Figure 2-5 Project Landscaping Plan



Source: Ware Malcomb, 7/19/2022.

2.6 Surrounding Land Uses and Setting

As shown in Figure 2-6, surrounding land uses consist of commercial and industrial buildings to the north, south, and west. The Rancho Dominguez Preparatory School (a Los Angeles Unified School District [LAUSD] facility) is approximately 550 feet west of the project site and Dominguez Elementary School (also an LAUSD facility) is approximately 640 feet northwest of the project site[2], both accessible by Santa Fe Avenue. I-710 is east of the project site (see Figure 2-6). Just east of I-710 is the Metro A Line maintenance yard. The project site is currently vacant and undeveloped land. The site is an open field containing grasses and dirt, but there are also landscaping trees around the boundaries of the site, and the site also encompasses parts of Via Alcalde Avenue.

2.7 Project Objectives

The objectives of the proposed project are the following:

- Improve the efficiency of Intex's business operations by consolidating the company's warehousing, distribution, and office operations (including its current operations in Fontana, California and locally at 4001 Via Oro Avenue and 1665 Hughes Way) into a single location
- Develop the currently vacant project site with a project that would be consistent with the intended use of the site as reflected in its zoning and General Plan PlaceTypes (land use designation)
- Improve the efficiency of the flow of cargo from the Ports of Long Beach and Los Angeles to Intex's new consolidated warehouse and corporate headquarters (project) and subsequent national distribution of products from this location
- Improve circulation around, into, and out of the project site and improve the safety and aesthetics of the project area by vacating Via Alcalde Avenue in the eastern portion of the project site
- Implement a project that will provide high quality design, materials, and operational methods to promote sustainability, energy, and water conservation and healthy workplaces
- Enhance the City's economy and tax base by developing the currently vacant property with improvements that will generate increased property taxes, employment, and economic activity

[2] These distances are from property line to property line. School buildings at Dominguez Elementary School are approximately 780 feet northwest of the project site, and school buildings at Rancho Dominguez Preparatory School are approximately 690 feet northwest of the project site.

Figure 2-6 Surrounding Land Uses Photographs

Photograph 1. View from project looking north along Via Alcalde Avenue, with I-710 freeway on right.

Photograph 2. View of commerical buildings to the west of the project site across Via Oro Avenue (including the Intex Recreation Corporation building at 4001 Via Oro Avenue).

2.8 Required Approvals

In accordance with Sections 15050 and 15367 of the State CEQA Guidelines, the City is the designated Lead Agency for the proposed project and has principal authority and jurisdiction for CEQA actions and project approval. Responsible Agencies are those agencies that have jurisdiction or authority over one or more aspects associated with the development of a proposed project and/or mitigation. Trustee Agencies are State agencies that have jurisdiction by law over natural resources affected by a proposed project.

The proposed project would require approvals by the Long Beach Planning Commission and approvals and adoption by the Long Beach City Council, including the following discretionary approvals:

- Site Plan Review: approval by the Planning Commission
- Lot Merger: approval by the Planning Commission or Zoning Administrator
- Street Vacation General Plan Conformity Finding for Via Alcalde Avenue: finding by Planning Commission (completed August 6, 2020)
- Right-of-Way Vacation for Via Alcalde Avenue: approval by the City Council following project approval and EIR certification by Planning Commission

In addition, ministerial permits, including grading permits, building permits, and public works permits, would be issued by the City to allow site preparation and construction of the proposed project and off-site improvements and project infrastructure connections.

No responsible or trustee agencies have been identified for the proposed project.

2.8.1 Conditions of Approval

The following project design features will be required as conditions of approval (COAs) of the proposed project. When these features are required through existing regulations the regulation is cited below. When they are required through mitigation measures included in this EIR the number of that mitigation measure is cited below. Some of these COAs are also listed in the Technical Advisory Committee (TAC) letters included in Appendix C of this EIR. This list of COAs is not meant to be exhaustive and other COAs may apply to the proposed project. All COAs will be considered for approval by the lead agency as part of the required approvals described above.

<u>Storm Water and Drainage</u>

- Long Beach Municipal Code (LBMC) Chapter 18.74 Low Impact Development Standards applies to new development or redevelopment projects and will therefore apply to the proposed project. It will require the use of low impact development (LID) standards to effectively manage and retain storm water on-site by using small-scale, natural drainage features to slow, clean, infiltrate and capture rainfall that results in an economical and efficient way to replenish local aquifers, reduce pollution, increase the reuse of water and improve the quality of our beaches and waterways.
- LBMC Chapter 18.61 National Pollutant Discharge Elimination System (NPDES) and Standard Urban Storm Water Mitigation Plan (SUSMP) Regulations will apply to the proposed project. It requires adequate and proper design and construction measures be taken to prohibit non-storm water discharges into the storm drain systems or receiving waters and requires source control BMP to prevent or reduce discharge of pollutants into the storm water to the maximum extent possible.

- Prior to approving an engineering plan, all projects greater than one acre in size must demonstrate coverage under the State Construction General NPDES Permit. To meet this requirement, the applicant must submit a copy of the letter from the State Water Resource Control Board acknowledging receipt of the Notice of Intent (NOI) and a certification from the developer or engineer that a Storm Water Pollution Prevention Plan (SWPPP) has been prepared.
- The applicant shall submit a grading plan with hydrology and hydraulic calculations showing building elevations and drainage pattern and slopes, for review and approval by the Director of Planning and Building Services and the Director of Public Works, prior to approval of the map and/or release of any building permit.
- The applicant shall submit a drainage plan for approval by Public Works prior to issuance of a building permit.

Utility Lines and Right-of-Way Vacation

- The applicant shall check with the Long Beach Water Department at (562) 570-2300 and the Gas and Oil Department at (562) 570-2030 for scheduled main replacement work prior to submitting any improvement plans to the Department of Public Works.
- Subject to a successful right-of-way vacation, the developer is responsible for relocating or reserving an easement for all public utilities within Via Alcalde Avenue to the satisfaction of the interested utility agency, City department and the Director of Public Works. The vacation application shall be applied for prior to issuance of the building permit. The vacation is not guaranteed and is subject to City Council action. Additionally, subject to a successful vacation, the vacated area may be building restricted and said restrictions may be conditioned upon the vacation.

Solar Panels and Carbon/Electricity Generation Offset

- According to the 2022 Energy Code, the proposed project would be required to incorporate a photovoltaic (PV) solar system as described on page 294 based on Table 140-10A building type (see https://www.energy.ca.gov/sites/default/files/2022-12/CEC-400-2022-010_CMF.pdf).
- The Long Beach Climate Action Plan (LB-CAP) checklist also requires the project to be fully electric, with full carbon/electricity generation offset by including solar panels. This will be a required project design feature. The proposed project will be required to be LEED (Leadership in Energy and Environmental Design) certified, LB-CAP checklist compliant, and Title 24 compliant.

Electric Vehicle Parking Spaces

- The proposed project would be required to incorporate electric vehicle parking spaces consistent with LBMC 18.47.050 and CALGreen Section 5.106.5.3—Electric vehicle (EV) charging. Essentially, 20 percent of EV capable spaces (114 out of 570 total parking spaces) and 25 percent EVCS of EV capable spaces (29 EVCS) would be required (see

  https://codes.iccsafe.org/content/CAGBC2022P1/chapter-5-nonresidential-mandatory-measures).

2.9 Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1?

The City initiated the tribal consultation process, as required under Public Resources Code (PRC) Section 21080.3.1 and consistent with AB 52. The City mailed consultation letters to 11 tribes on January 11, 2023, consistent with the requirements of AB 52, to contacts identified by the Native American Heritage Commission and to Native American tribes that requested notification from the City of Long Beach of projects subject to AB 52. Under AB 52, Native American tribes have 30 days to respond and request further project information and formal consultation. The City received requests for consultation from two tribes. Project-related impacts to tribal cultural resources are potentially significant and these potential impacts, and the outcome of consultation with tribes, are discussed in Section 4.12, *Tribal Cultural Resources* of this EIR.

3 Environmental Setting

This section provides a general overview of the environmental setting for the proposed project. More detailed descriptions of the environmental setting for each environmental issue area can be found in Section 4.0, *Environmental Impact Analysis*.

3.1 Regional Setting

The project site is in the City of Long Beach (City), a charter city in southern Los Angeles County approximately 20 miles south of downtown Los Angeles. Los Angeles County encompasses approximately 4,751 square miles and has an estimated population of 9,861,224 residents (California Department of Finance [DOF] 2023). Incorporated in 1897, the City of Long Beach encompasses roughly 53 square miles and has an estimated population of 460,682 (California Department of Finance [DOF] 2023). The City is an urban community with a broad mix of land uses, including housing, commercial, office, industrial, open space/recreation, and public serving uses. The southern end of the City borders San Pedro Bay and the Pacific Ocean. Figure 2-1, *Regional Location*, in Section 2, *Project Description*, shows the location of the project site in the region. Figure 2-2, *Project Location*, shows the location of the project site in relationship to the surrounding neighborhood.

Five major transportation routes traverse the City: the San Diego Freeway (Interstate-405 [I-405]), the Artesia Freeway (State Highway-91 [SR-91]), the Long Beach Freeway (Intersate-710 [I-710]), the San Gabriel River Freeway (Interstate-605 [I-605]), and the Pacific Coast Highway (State Route 1). Additionally, the City is home to the Port of Long Beach, with substantial goods movements leading to and from the port via truck and rail.

Regional topography includes the Peninsular Ranges, which encompass the southern portion of Los Angeles County, the southwest corner of San Bernardino County, all of Orange County, and the San Jacinto Mountains and the Coachella Valley in the central portion of Riverside County. The City of Long Beach is located in the South Coast hydrologic region, with a Mediterranean climate featuring moderate temperatures, rainy winters, and dry summers. Storm water runoff is primarily directed through a series of storm water drainage facilities to the Los Angeles and San Gabriel Rivers, which eventually drain to San Pedro Bay and Alamitos Bay, respectively. The Newport-Inglewood fault runs through the City in a southeast to northwest manner and is 0.4 miles east of the project site. The City is also near several active faults including the Whittier, Palos Verdes, Santa Monica, and San Andreas Faults, thereby placing the project site in a seismically active region (Long Beach 1988).

The City is located within the South Coast Air Basin (Basin), where air quality is affected by various emission sources (e.g., motor vehicles and industry) as well as atmospheric conditions. Although air quality in the area has steadily improved in recent years, the combination of topography, low mixing height, abundant sunshine, and emissions from the second largest urban area in the United States result in failure of the region to meet state and federal air quality standards for ozone, PM_{10} (nonattainment for state standards only), $PM_{2.5}$, and lead (nonattainment for federal standards only) (California Air Resources Board [CARB] 2022).

3.2 Project Site Setting

As shown in Figure 2-2, *Project Location* in Section 2.0, *Project Description,* the project site is currently vacant, undeveloped land. Most of the site is an open field containing grasses and dirt, but there are also landscaping trees around the boundaries of the site. A portion of the site also encompasses parts of Via Alcalde Avenue. The project site contains a former oil/gas well that was abandoned and plugged in 1944. The site was also historically used for agriculture and, more recently, for flying remote control helicopters. The project site is bordered by West Via Plata Street to the north, Via Oro Avenue and commercial and residential development to the west, West Carson Street and commercial development to the south, and I-710 to the east.

The project site encompasses two parcels. It is in the "I" (Industrial) Place type of the City's newly adopted General Plan Land Use Element and is located on "Ownership Parcel B" in Subarea I of the West Long Beach Business Parks Planned Development Zoning District (PD 26). Uses permitted in PD-26 include manufacturing of various products, industrial activities, service and repair, storage, transportation, communications, utilities and public services, retail, administrative or professional offices, and a variety of similar services typically found in a business center.

3.3 Cumulative Development

In addition to the specific impacts of individual projects, CEQA requires EIRs to consider potential cumulative impacts of the proposed project. CEQA defines "cumulative impacts" as two or more individual impacts that, when considered together, are substantial or will compound other environmental impacts. Cumulative impacts are the combined changes in the environment that result from the incremental impact of development of the proposed project and other closely related past, present, and reasonably foreseeable probable future projects (*CEQA Guidelines* Section 15355[b]). For example, traffic impacts of two projects may be less than significant when analyzed separately but could have a significant impact when analyzed together. Cumulative impact analysis allows the EIR to provide a reasonable forecast of future environmental conditions and can more accurately gauge the effects of a series of projects.

CEQA requires cumulative impact analysis in EIRs to consider either a list of planned and pending projects that may contribute to cumulative effects or a forecast of future development potential. Currently planned and pending projects in Long Beach, within one mile of the project site (other than the proposed project), are listed in Table 3-1, Cumulative Projects List and in Figure 3-1. These projects are considered in the cumulative analyses in Section 4.0, *Environmental Impact Analysis*.

Table 3-1 Cumulative Projects List

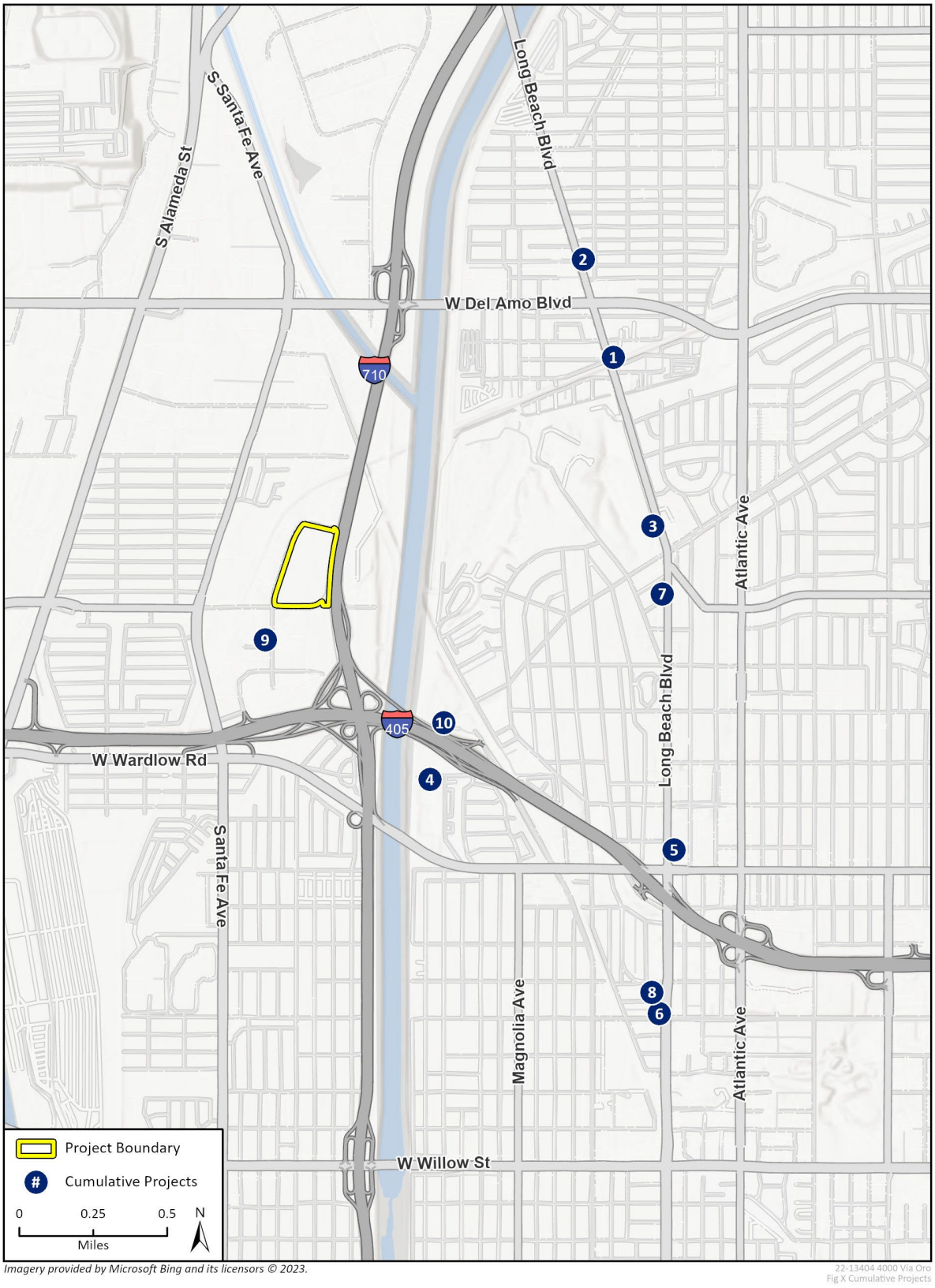
Project No.	Project Location	Land Use	Description	Status
1	4800 Long Beach Boulevard	Residential	20 3-story townhomes totaling 48,003-square feet (sf)	Under construction
2	5100 Long Beach Boulevard	Residential	38 three-story townhomes totaling 78,621-sf	Under construction
3	4251 Long Beach Boulevard	Commercial	New 8,559 sf commercial shell building.	Under construction
4	712 Baker Street	Residential and Open Space	226 detached and attached single-family homes and 217,800 square feet of recreational space on approximately 871,200-sf of vacant land	Approved by PC/CC, CEQA Litigation Pending
5	3450 Long Beach Boulevard	Office	3-story, 15,200-sf office building with 76 parking stalls.	Pending
6	3009 Long Beach Boulevard	Commercial	New construction of a single story 6,500-sf shell for a future medical office building.	Pending
7	4101 Long Beach Boulevard	Public	New construction of a 2-story 12,656-sf fire station #9 with 3 drive through apparatus bays.	Approved
8	3061 Long Beach Boulevard	Commercial	Proposed new 26-room, 3-story boutique hotel to replace an existing 1 story, 1392-sf auto repair shop.	Pending
9	3901 Via Oro Avenue	Office and Warehouse	Demolition of an existing 53,488-sf office building, and construction of a new 74,203-sf warehouse building to include a 5,350-sf office mezzanine and related parking and landscaping improvements.	Pending
10	3701 Pacific Place	Commercial	206,756 gross sf self-storage facility with 240,000-sf of covered RV parking and a 1,281-sf car wash.	Pending

Cumulative project details were sourced from the City of Long Beach in June 2023.

sf = square foot

Projects include those within one mile of 4000 Via Oro (other than the proposed project) and which are 5,000 sf or greater for commercial/industrial and/or 10 dwelling units or greater.

Figure 3-1 Cumulative Projects



4 Environmental Impact Analysis

This section discusses the possible environmental effects of the Intex Corporate Office and Fulfillment Center Project for the specific issue areas that were identified through the scoping process as having the potential to experience significant effects. A "significant effect" as defined by the *CEQA Guidelines* §15382:

> …means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.

The assessment of each issue area begins with a discussion of the environmental setting related to the issue, which is followed by the impact analysis. In the impact analysis, the first subsection identifies the methodologies used and the "significance thresholds," which are those criteria adopted by the City and other agencies, universally recognized, or developed specifically for this analysis to determine whether potential effects are significant. The next subsection describes each impact of the proposed project, mitigation measures for significant impacts, and the level of significance after mitigation. Each effect under consideration for an issue area is separately listed in bold text with the discussion of the effect and its significance. Each bolded impact statement also contains a statement of the significance determination for the environmental impact as follows:

- **Significant and Unavoidable.** An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per §15093 of the *CEQA Guidelines*.
- **Less than Significant with Mitigation Incorporated.** An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under §15091 of the *CEQA Guidelines*.
- **Less than Significant.** An impact that may be adverse but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact.** The proposed project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

Following each environmental impact discussion is a list of mitigation measures (if required) and the residual effects or level of significance remaining after implementation of the measure(s). In cases where the mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed and evaluated as a secondary impact. The impact analysis concludes with a discussion of cumulative effects, which evaluates the impacts associated with the proposed project in conjunction with other planned and pending developments in the area listed in Section 3, *Environmental Setting*.

The Executive Summary of this EIR summarizes all impacts and mitigation measures that apply to the proposed project.

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4.1 Air Quality

This section of the EIR describes the affected environment and the regulatory setting for air quality and impacts on air quality from construction and operation of the proposed project, including impacts to nearby sensitive receptors and contributions to cumulative impacts. Construction and operational emissions associated with project buildout were calculated using the California Emissions Estimator Model (CalEEMod), version 2022.1 and vehicle miles traveled (VMT) data provided by Fehr and Peers in their Traffic Impact Analysis for the proposed project (Appendix D) as reported in Section 4.11, *Transportation.* Results of the calculations were compared to South Coast Air Quality Management District (SCAQMD) thresholds to determine impacts.

4.1.1 Setting

Climate and Topography

The project site is in the South Coast Air Basin (SCAB), which is under the jurisdiction of SCAQMD. The SCAB is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area in Riverside County.[1] The regional climate in the SCAB is semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The air quality in the SCAB is primarily influenced by meteorology and a wide range of emission sources, such as dense population centers, substantial vehicular traffic, and industry.

Most annual rainfall in the SCAB occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thundershowers in coastal regions and slightly heavier showers in the eastern portion of the SCAB and along the coastal side of the mountains. Long Beach has a Mediterranean climate with moderate, dry summers. The warmest month of the year is August, and the coldest month of the year is December. The annual average maximum temperature is 74.2 degrees Fahrenheit (°F), while the annual average minimum temperature is 54.8°F. Rainfall is concentrated in the winter months. Local climate conditions are summarized below in Table 4.1-1**.**

Table 4.1-1 Long Beach Climate Conditions

Temperature Condition	Amount
Average annual rainfall	12.01 inches
Annual average maximum temperature	74.2°F
Annual average minimum temperature	54.8°F
Warmest month	August
Coolest month	December

°F = degrees Fahrenheit
Note: Averages are based on the period of record from January 1, 1949, to June 9, 2016, at the Long Beach Daugherty Field approximately 3.5 miles southeast of the project site.
Source: Western Regional Climate Center 2016

[1] A map of SCAQMD jurisdiction is available at: http://www.aqmd.gov/docs/default-source/default-document-library/map-of-jurisdiction.pdf

The SCAB experiences a persistent temperature inversion (increasing temperature with increasing altitude) as a result of the Pacific High-pressure system. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion layer (i.e., the upper layer) until the inversion layer finally breaks, allowing vertical mixing with the lower layer. This phenomenon is observed in mid- to late afternoons on hot summer days. Winter inversions frequently break by mid-morning.

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino counties. In the winter, the greatest pollution problem is the accumulation of carbon monoxide and nitrogen oxides (NO_X) due to low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and brighter sunshine combine to cause a reaction between hydrocarbons and NO_X to form photochemical smog.

Air pollutant emissions in the SCAB are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products. Mobile sources refer to 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, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

Air Pollutants of Primary Concern

Primary criteria pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere. Primary criteria pollutants include carbon monoxide (CO), nitrogen dioxide (NO_2), fine particulate matter (PM_{10} and $PM_{2.5}$), sulfur dioxide (SO_2), and lead (Pb). Ozone (O_3) is considered a secondary criteria pollutant because it is created by atmospheric chemical and photochemical reactions between reactive organic gases (ROG) and NO_X. The project would generate CO, PM_{10}, $PM_{2.5}$, and SO_2 as well as ozone precursors ROG and NO_X (including NO_2) during construction and operation. Pb is also considered an air pollutant of primary concern, although it would not be generated by the proposed project. These pollutants can have adverse impacts on human health at certain levels of exposure. The following subsections describe the characteristics, sources, and health and atmospheric effects of air pollutants.

Ozone

O_3 is a highly oxidative unstable gas produced by a photochemical reaction (triggered by sunlight) between NO_X and VOC. VOC is composed of non-methane hydrocarbons (with specific exclusions), and NO_X is composed of different chemical combinations of nitrogen and oxygen, mainly nitric oxide and NO_2. NO_X is formed during the combustion of fuels, while VOC is formed during the combustion and evaporation of organic solvents. As a highly reactive molecule, O_3 readily combines with many different atmosphere components. Consequently, high O_3 levels tend to exist only while high VOC and

NO_X levels are present to sustain the O_3 formation process. Once the precursors have been depleted, O_3 levels rapidly decline. Because these reactions occur on a regional rather than local scale, O_3 is considered a regional pollutant. In addition, because O_3 requires sunlight to form, it mainly occurs in concentrations considered serious between April and October. People most at risk from O_3 include people with asthma, children, older adults, and people who are active outdoors, especially outdoor workers. In addition, people with reduced intake of certain nutrients, such as vitamins C and E, are at greater risk from O_3 exposure. Depending on the level of exposure, O_3 can cause coughing and a sore or scratchy throat; make it more difficult to breathe deeply and vigorously and cause pain when taking a deep breath; inflame and damage the airways; make the lungs more susceptible to infection; aggravate lung diseases such as asthma, emphysema, and chronic bronchitis; and increase the frequency of asthma attacks (USEPA 2023a).

Carbon Monoxide

CO is a localized pollutant found in high concentrations only near its source. The primary source of CO, a colorless, odorless, poisonous gas, is automobile traffic's incomplete combustion of petroleum fuels. Therefore, elevated concentrations are usually only found near areas of high traffic volumes. When CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease. These people already have a reduced ability to get oxygenated blood to their hearts in situations where they need more oxygen than usual. As a result, they are especially vulnerable to the effects of CO when exercising or under increased stress. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain, also known as angina (USEPA 2023b).

Nitrogen Dioxide

The primary sources of NO_x are motor vehicles, industrial boilers, and furnaces. The principal form of NO_x produced by combustion is nitric oxide (NO), but NO reacts rapidly to form NO_2, creating the mixture of NO and NO_2, commonly called NO_x. NO_2 is a reactive, oxidizing gas and an acute irritant capable of damaging cell linings in the respiratory tract. Breathing air with a high concentration of NO_2 can irritate airways in the human respiratory system. Such exposures over short periods can aggravate respiratory diseases leading to respiratory symptoms (such as coughing, wheezing, or difficulty breathing), hospital admissions, and visits to emergency rooms. Longer exposures to elevated concentrations of NO_2 may contribute to the development of asthma and potentially increase susceptibility to respiratory infections. People with asthma and children and the elderly are generally at greater risk for the health effects of NO_2 (USEPA 2023c). NO_2 absorbs blue light and causes a reddish-brown cast to the atmosphere and reduced visibility. It can also contribute to the formation of O_3, smog, and acid rain.

Sulfur Dioxide

SO_2 is included in a group of highly reactive gases known as “oxides of sulfur.” The largest sources of SO_2 emissions are from fossil fuel combustion at power plants (73 percent) and other industrial facilities (20 percent). Smaller sources of SO_2 emissions include industrial processes such as extracting metal from ore and burning fuels with a high sulfur content by locomotives, large ships, and off-road equipment. Short-term exposures to SO_2 can harm the human respiratory system and make breathing difficult. People with asthma, particularly children, are sensitive to these effects of SO_2 (USEPA 2023d).

Particulate Matter

Suspended atmospheric PM_{10} and $PM_{2.5}$ are comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mist. Both PM_{10} and $PM_{2.5}$ are emitted into the atmosphere as by-products of fuel combustion and wind erosion of soil and unpaved roads. The atmosphere, through chemical reactions, can form particulate matter. The characteristics, sources, and potential health effects of PM_{10} and $PM_{2.5}$can be very different. PM_{10} is generally associated with dust mobilized by wind and vehicles. In contrast, $PM_{2.5}$ is generally associated with combustion processes and formation in the atmosphere as a secondary pollutant through chemical reactions. PM_{10} can cause increased respiratory disease, lung damage, cancer, premature death, reduced visibility, surface soiling. For $PM_{2.5}$, short-term exposures (up to 24-hours duration) have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases (CARB 2023a).

Lead

Pb is a metal found naturally in the environment, as well as in manufacturing products. The major sources of Pb emissions historically have been mobile and industrial. However, due to the USEPA 's regulatory efforts to remove Pb from gasoline, atmospheric Pb concentrations have declined substantially over the past several decades. The most dramatic reductions in Pb emissions occurred before 1990 due to the removal of Pb from gasoline sold for most highway vehicles. Pb emissions were further reduced substantially between 1990 and 2008, with reductions occurring in the metals industries at least partly due to national emissions standards for hazardous air pollutants (USEPA 2014). As a result of phasing out leaded gasoline, metal processing is currently the primary source of Pb emissions. The highest Pb level in the air is generally found near Pb smelters. Other stationary sources include waste incinerators, utilities, and Pb-acid battery manufacturers. Pb can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and cardiovascular system depending on exposure. Pb exposure also affects the oxygen-carrying capacity of the blood. The Pb effects most likely encountered in current populations are neurological in children. Infants and young children are susceptible to Pb exposures, contributing to behavioral problems, learning deficits, and lowered IQ (USEPA 2023e).

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TAC) are a diverse group of airborne substances/air pollutants that may cause or contribute to an increase in deaths or serious illness, or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. One of the main sources of TACs in California is diesel engine exhaust that contains solid material known as diesel particulate matter (DPM). More than 90 percent of DPM is less than one micron in diameter (about $1/70^{th}$ the diameter of a human hair) and thus is a subset of $PM_{2.5}$. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs (CARB 2023a). TACs are different than criteria pollutants because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., long duration) and acute (i.e., severe but of short duration) adverse effects on

human health. People exposed to TACs at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects. These health effects can include damage to the immune system, as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and other health problems (USEPA 2023).

Current Air Quality

The SCAQMD operates a network of air quality monitoring stations throughout the SCAB. The purpose of the monitoring stations is to measure ambient concentrations of pollutants and determine whether ambient air quality meets the California and federal standards. The following is a summary of the monitoring stations closest to the project site.

The monitoring station closest to the project site is the Long Beach-Hudson monitoring station, located at 2425 Webster Avenue in Long Beach, approximately 2.1 miles south of the project site. The Long Beach-Hudson station collected PM_{10} concentrations in 2021 but it did not report $PM_{2.5}$ measurements and did not report data for 8-hour ozone, 1-hour ozone, and NO_2 during the 2020, 2021, and 2022 monitoring years. In addition, the Long Beach-Hudson station did not collect data for PM_{10} in 2020 and 2022.

The Long Beach-Signal Hill station, located at 1710 East 20th Street in Signal Hill, is approximately 3.5 miles southeast of the project site. The Long Beach Signal Hill station collected 8-hour ozone, 1-hour ozone, NO_2, and sulfur dioxide measurements every year from 2020 to 2022. PM_{10} and $PM_{2.5}$ measurements in 2022 were collected at the Long Beach Signal Hill Station.

The Compton monitoring station is located at 700 North Bullis Road in Compton, approximately 4.5 miles northwest of the project site. The Compton monitoring station collected $PM_{2.5}$ measurements in 2020 and 2021. In addition, the Compton monitoring station collected CO measurements every year from 2020 to 2022.

The Los Angeles-Main Street monitoring station is located at 1630 N Main Street, Los Angeles, approximately 16 miles north of the project site. The Los Angeles-Main Street monitoring station collected PM_{10} measurements in 2020.

Table 4.1-2 indicates the number of days that each of the federal and State standards has been exceeded at monitoring stations near the project site in each of the last three years for which data is available. At these stations, the federal and State 8-hour ozone standards were exceeded in 2020 and 2022. In addition, the State 1-hour ozone standards were exceeded in 2020 and 2022. The PM_{10} State standard was exceeded in 2020, 2021 and 2022, and the $PM_{2.5}$ federal standard was exceeded in 2020 and 2021. No other State or federal standards were exceeded at nearby monitoring stations.

Table 4.1-2 Annual Ambient Air Quality Data from Nearest Monitoring Stations

Pollutant	2020	2021	2022
Ozone (ppm), Worst 1-Hour[1]	0.105	0.086	0.108
Number of days above CAAQS (>0.09 ppm)	4	0	1
Number of days above NAAQS (>0.12 ppm)	0	0	0
Ozone (ppm), Worst 8-Hour Average[1]	0.083	0.064	0.077
Number of days above CAAQS (>0.070 ppm)	4	0	1
Number of days above NAAQS (>0.070 ppm)	4	0	1
Carbon Monoxide (ppm), Highest 8-Hour Average[2]	4.5	4.3	3.4
Number of days above CAAQS or NAAQS (>9.0 ppm)	0	0	0
Nitrogen Dioxide (ppm), Worst 1-Hour[1]	0.075	0.059	0.058
Number of days above CAAQS (>0.180 ppm)	0	0	0
Number of days above NAAQS (>0.100 ppm)	0	0	0
Sulfur Dioxide (ppm), Worst Hour[1]	0.009	0.0059	0.006
Number of days above CAAQS (>0.25 ppm)	0	0	0
Number of days above NAAQS (>0.075 ppm)	0	0	0
Particulate Matter <10 microns (μg/m^3), Worst 24 Hours[1,3,4]	77	62	57
Number of days above CAAQS (>50 μg/m^3)	27	3	2
Number of days above NAAQS (>150 μg/m^3)	0	0	0
Particulate Matter <2.5 microns (μg/m^3), Worst 24 Hours[1,2]	67.5	102.1	28.8
Number of days above NAAQS (>35 μg/m^3)	19	12	0

ppm = parts per million; μg/m^3 = micrograms per cubic meter; CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard

[1] Data sourced from the CARB at the nearest monitoring station with available data at the Long Beach-Signal Hill station in Signal Hill.

[2] Data sourced from the CARB at the nearest monitoring station with available data at the Compton-700 North Bullis Road station in Compton.

[3] Data sourced from the CARB at the nearest monitoring station with available data at the Los Angeles-Main Street station at 1630 North Main Street in Los Angeles.

[4] Data sourced from the CARB at the nearest monitoring station with available data at 2425 Webster Avenue in Long Beach.

Source: CARB 2023b CARB 2023c, and SCAQMD 2023a

Sensitive Receptors

Ambient air quality standards have been established to represent the levels of air quality considered sufficient, with a margin of safety, to protect public health and welfare. They are designed to protect that segment of the public most susceptible to respiratory distress, such as children under 14, the elderly (over the age of 65), people engaged in strenuous work or exercise, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, long-term health care facilities, rehabilitation centers, convalescent centers, hospitals, retirement homes, and schools, playgrounds, and childcare centers (SCAQMD 2005). Sensitive receptors nearest to the project site consist of single-family residences approximately 340 feet northwest of the project site; Rancho Dominguez Preparatory School approximately 550 feet

west of the project site; and Dominguez Elementary School approximately 640 feet northwest of the project site[2].

4.1.2 Regulatory Setting

The federal and state governments have authority under the federal and state Clean Air Acts (CAA) to regulate emissions of airborne pollutants and have established ambient air quality standards (AAQS) for the protection of public health. An air quality standard is defined as "the maximum amount of a pollutant averaged over a specified period of time that can be present in outdoor air without harming public health" (CARB 2023d). The United States EPA is the federal agency designated to administer air quality regulation, while CARB is the state equivalent in California. Federal and state AAQS have been established for six criteria pollutants: O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and Pb. AAQS are designed to protect those segments of the public most susceptible to respiratory distress, such as children under the age of 14, the elderly (over the age of 65), persons engaged in strenuous work or exercise, and people with cardiovascular and chronic respiratory diseases (USEPA 2023f). In addition, the state of California has established health-based ambient air quality standards for these and other pollutants, some of which are more stringent than the federal standards (CARB 2023e). The federal and state CAA are described in more detail below.

a. Federal Regulations

The CAA was enacted in 1970 and amended in 1977 and 1990 [42 United States Code (USC) 7401] for the purpose of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. In 1971, to achieve the purposes of Section 109 of the CAA [42 USC 7409], the United States EPA developed primary and secondary National Ambient Air Quality Standards (NAAQS).

The primary NAAQS "in the judgment of the Administrator[3], based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health," and the secondary standards are to "protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air" [42 USC 7409(b)(2)]. The United States EPA classifies specific geographic areas as either "attainment" or "nonattainment" areas for each pollutant based on the comparison of measured data with the NAAQS. States are required to adopt enforceable plans, known as a State Implementation Plan (SIP), to achieve and maintain air quality meeting the NAAQS. State plans also must control emissions that drift across state lines and harm air quality in downwind states. Table 4.1-3 lists the current federal standards for regulated pollutants.

To derive the NAAQS, the USEPA reviews data from integrated science assessments and risk/exposure assessments to determine the ambient pollutant concentrations at which human health impacts occur, then reduces these concentrations to establish a margin of safety (USEPA 2022). As a result, human health impacts caused by the air pollutants discussed above may affect people when ambient air pollutant concentrations are at or above the concentrations established by the NAAQS. The closer a region is to attainting a particular NAAQS, the lower the human health impact is from that pollutant (San Joaquin Valley Air Pollution Control District 2015). Accordingly, ambient air pollutant concentrations below the NAAQS are considered to be protective of human health (CARB 2023d and 2023e). The NAAQS and the underlying science that forms the basis of the NAAQS are reviewed every

[2] These distances are from property line to property line. School buildings at Dominguez Elementary School are approximately 780 feet northwest of the project site and school buildings at Rancho Dominguez Preparatory School are approximately 690 feet northwest of the project site.
[3] The term "Administrator" means the Administrator of the United States EPA .

five years to determine whether updates are necessary to continue protecting public health with an adequate margin of safety (USEPA 2015).

Table 4.1-3 Federal and State Ambient Air Quality Standards

Pollutant	NAAQS	CAAQS
Ozone	0.070 ppm (8-hr avg)	0.09 ppm (1-hr avg) 0.070 ppm (8-hr avg)
Carbon Monoxide	35.0 ppm (1-hr avg) 9.0 ppm (8-hr avg)	20.0 ppm (1-hr avg) 9.0 ppm (8-hr avg)
Nitrogen Dioxide	0.100 ppm (1-hr avg) 0.053 ppm (annual avg)	0.18 ppm (1-hr avg) 0.030 ppm (annual avg)
Sulfur Dioxide	0.075 ppm (1-hr avg) 0.5 ppm (3-hr avg) 0.14 ppm (24-hr avg) 0.030 ppm (annual avg)	0.25 ppm (1-hr avg) 0.04 ppm (24-hr avg)
Lead	0.15 μg/m^3 (rolling 3-month avg) 1.5 μg/m^3 (calendar quarter)	1.5 μg/m^3 (30-day avg)
Particulate Matter (PM_{10})	150 μg/m^3 (24-hr avg)	50 μg/m^3 (24-hr avg) 20 μg/m^3 (annual avg)
Particulate Matter ($PM_{2.5}$)	35 μg/m^3 (24-hr avg) 12 μg/m^3 (annual avg)	12 μg/m^3 (annual avg)
Visibility-Reducing Particles	No Federal Standards	Extinction coefficient of 0.23 per kilometer – visibility of ten miles or more (0.07 - 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape. (8-hr avg)
Sulfates	No Federal Standards	25 μg/m^3 (24-hr avg)
Hydrogen Sulfide	No Federal Standards	0.03 ppm (1-hr avg)
Vinyl Chloride	No Federal Standards	0.01 ppm (24-hr avg)

NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million; avg = average; μg/m^3 = micrograms per cubic meter

Source: CARB 2016

b. State Regulations

California Clean Air Act

The California Clean Air Act (CCAA) was enacted in 1988 (California Health & Safety Code (H&SC) §39000 et seq.). Under the CCAA, the state has developed the California Ambient Air Quality Standards (CAAQS), which are generally more stringent than the NAAQS. Table 4.1-3 lists the current state standards for regulated pollutants. In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. Similar to the federal CAA, the CCAA classifies specific geographic areas as either "attainment" or "nonattainment" areas for each pollutant, based on the comparison of measured data within the CAAQS.

Toxic Air Contaminants

A Toxic Air Contaminant (TAC) is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or which may pose a present or potential hazard to human health. TACs may result in long-term health effects such as cancer, birth defects, neurological damage, asthma, or genetic damage, or short-term acute effects such as eye watering, respiratory irritation, runny nose, throat pain, and headaches. TACs are considered either carcinogenic or non-carcinogenic based on the nature of the health effects associated with exposure. For carcinogenic TACs, potential health impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Non-carcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

TACs include both organic and inorganic chemical substances. One of the main sources of TACs in California is diesel engines that emit exhaust containing solid material known as DPM; however, TACs may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities.

In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (Assembly Bill [AB] 1807: Health and Safety Code Sections 39650–39674). The Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures, and provisions for reducing risk. Additionally, the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly Bill) was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, identify facilities having localized impacts, ascertain health risks, notify nearby residents of significant risks, and reduce those significant risks to acceptable levels. The Children's Environmental Health Protection Act, California Senate Bill (SB) 25 (Chapter 731, Escutia, Statutes of 1999), focuses on children's exposure to air pollutants. The act requires CARB to review its air quality standards from a children's health perspective, evaluate the statewide air quality monitoring network, and develop any additional air toxic control measures needed to protect children's health.

State Implementation Plan

The State Implementation Plan (SIP) is a collection of documents that set forth the state's strategies for achieving the AAQS. In California, the SIP is a compilation of new and previously submitted plans, programs (such as monitoring, modeling, and permitting), district rules, state regulations, and federal controls. CARB is the lead agency for all purposes related to the SIP under state law. Local air districts and other agencies, such as the Department of Pesticide Regulation and the Bureau of Automotive Repair, prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the United States EPA for approval and publication in the Federal Register. The items included in the California SIP are listed in the Code of Federal Regulations at 40 Code of Federal Regulations 52.220.

As the regional air quality management district, the SCAQMD is responsible for preparing and implementing the portion of the SIP applicable to the portion of the SCAB within its jurisdiction. The air pollution control district for each county adopts rules, regulations, and programs to attain federal

and state air quality standards and appropriates money (including permit fees) to achieve these objectives.

California Code of Regulations

The California Code of Regulations is the official compilation and publication of the regulations adopted, amended, or repealed by state agencies pursuant to the Administrative Procedure Act. They are compiled into Titles and organized into Divisions containing the regulations of state agencies. The following California Code of Regulations would be applicable to the proposed Project:

- **Engine Idling.** In accordance with Section 2485 of Title 13 of the California Code of Regulations, the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location.
- **Emission Standards.** In accordance with Section 93115 of Title 17 of the California Code of Regulations, operation of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emission standards.

NAAQS and CAAQS Attainment Status

California is divided geographically into 15 air basins for managing the air resources of the state on a regional basis. Areas within each air basin are considered to share the same air masses and, therefore, are expected to have similar ambient air quality. If an air basin is not in either federal or state attainment for a particular pollutant, the basin is classified as a nonattainment area for that pollutant. Under the federal and state CAA, once a nonattainment area has achieved the air quality standards for a particular pollutant, it may be redesignated to an attainment area for that pollutant. To be redesignated, the area must meet air quality standards and have a 10-year plan for continuing to meet and maintain air quality standards, as well as satisfy other requirements of the federal CAA. Areas that have been redesignated to attainment are called maintenance areas.

The project site is within Los Angeles County, which currently exceeds the NAAQS for 8 and 1-hour ozone, $PM_{2.5}$, and Lead. Los Angeles County is classified an attainment/maintenance area under the CAAQS for CO, and attainment for $PM_{2.5}$. Los Angeles County is currently classified as a nonattainment area under the CAAQS for O_3, $PM_{2.5}$, and PM_{10} (CARB 2022).

c. Local Regulations

South Coast Air Quality Management District 2022 Air Quality Management Plan

To meet the NAAQS and CAAQS, the SCAQMD has adopted a series of AQMPs, which serve as a regional blueprint to develop and implement an emission reduction strategy that will bring the area into attainment with the standards in a timely manner. The most significant air quality challenge in the Air Basin is to reduce NO_X emissions sufficiently to meet the 2037 ozone standard deadline for the non-Coachella Valley portion of the SCAB, as NO_X plays a critical role in the creation of ozone. The 2022 AQMP includes strategies to ensure the SCAQMD does its part to further the Air District's ability to meet the 2015 federal ozone standards. The SCAQMD would need to reduce emissions of NO_X by 67 percent beyond what is required by the adopted rules and regulations in 2037 to meet the 2015 federal ozone standard (SCAQMD 2022). The 2022 AQMP builds on the measures already in place from the previous AQMPs and includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technology, best management practices, co-benefits

from existing programs, incentives, and other CAA measures to meet the 8-hour ozone standard. Since NO_X emissions also lead to the formation of $PM_{2.5}$, the NO_X reductions needed to meet the ozone standards will likewise lead to improvement of $PM_{2.5}$ levels and attainment of annual $PM_{2.5}$ standards (SCAQMD 2017).[4]

The SCAQMD's strategy to meet the NAAQS and CAAQS distributes the responsibility for emission reductions across federal, State, and local levels and industries. Most of these emissions are from heavy-duty trucks, ships, and other State and federally regulated mobile source emissions that are beyond SCAQMD's control. The 2022 AQMP is composed of stationary and mobile source emission reductions from traditional regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile source strategies, and reductions from federal sources, which include aircraft, locomotives, and ocean-going vessels. These strategies are to be implemented in partnership with the CARB and U.S. EPA. The district will not meet the standard without significant federal action. In addition to federal action, the 2022 AQMP relies on substantial future development of advanced technologies to meet the standards, including the transition to zero and low emission technologies. Of the needed NO_X emissions reductions, 46 percent will come from federal actions, 34 percent from CARB actions, and 20 percent will come directly from SCAQMD actions (SCAQMD 2022).

The AQMP also incorporates the transportation strategy and transportation control measures from SCAG's 2020-2045 RTP/SCS Plan (Connect SoCal) (SCAG 2020). SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial counties, and addresses regional issues relating to transportation, the economy, community development, and the environment. SCAG coordinates with various air quality and transportation stakeholders in southern California to ensure compliance with the federal and State air quality requirements. Pursuant to California Health and Safety Code Section 40460, SCAG has the responsibility of preparing and approving the portions of the AQMP relating to the regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. SCAG is required by law to ensure that transportation activities "conform" to, and are supportive of, the goals of regional and State air quality plans to attain the NAAQS. Connect SoCal includes transportation programs, measures, and strategies generally designed to reduce vehicle miles traveled (VMT), which are contained in the AQMP. The SCAQMD combines its portion of the AQMP with those prepared by SCAG (SCAQMD 2022). Connect SoCal and Transportation Control Measures, included as Appendix IV-C of the 2022 AQMP, are based on SCAG's Connect SoCal.

The 2022 AQMP forecasts the 2037 emissions inventories ''with growth'' based on SCAG's Connect SoCal. The region is projected to see a 12 percent growth in population, 17 percent growth in housing units, 11 percent growth in employment, and 5 percent growth in VMT between 2018 and 2037. Despite regional growth in the past, air quality has improved substantially over the years, primarily due to the effects of air quality control programs at the local, State, and federal levels (SCAQMD 2022).

Project-level significance thresholds established by local air quality management districts set the level at which a project would cause or have a cumulatively considerable contribution to an exceedance of the NAAQS and/or CAAQS. Therefore, if a project's air pollutant emissions exceed the NAAQS and/or CAAQS, the project could cause or contribute to human health impacts.

[4] Estimates are based on the inventory and modeling results and are relative to the baseline emission levels for each attainment year (see Final 2016 AQMP for detailed discussion).

South Coast Air Quality Management District Rules and Regulations

The SCAQMD implements rules and regulations for emissions that may be generated by various uses and activities. The rules and regulations detail pollution-reduction measures that must be implemented during construction and operation of projects. Rules and regulations relevant to the project include the following:

- **Rule 401 (Visible Emissions):** This rule prohibits the discharge of visible air pollutant emissions from various sources as determined by shade and opacity criteria based on the Ringelmann Chart.
- **Rule 402 (Nuisance):** This rule prohibits the discharge of quantities of air contaminants or other material that causes 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 Control):** This rule includes various requirements to prevent, reduce, and mitigate the amount of particulate matter entrained in the ambient air from man-made fugitive dust sources.
- **Rule 1113 (Architectural Coatings):** This rule establishes VOC content limits for a variety of architectural coatings, including 50 grams per liter for flat and non-flat coatings.

City of Long Beach Climate Action Plan

The City of Long Beach Climate Action Plan is a comprehensive planning document outlining the City's proposed approach both to address climate impacts on the city and to reduce the city's impact on the climate by reducing greenhouse gas emissions. See Section 4.6, *Greenhouse Gas Emissions* for more information about this plan and its relationship to the proposed project.

City of Long Beach General Plan Land Use Element

The City of Long Beach General Plan Land Use Element (Land Use Element) was adopted in December 2019. The Land Use Element directs the long-term physical development of the City by guiding use, form, and the characteristics of improvements on the land. The following goal, strategy, and policy are applicable to air quality issues related to the proposed project (City of Long Beach 2019):

Goal No. 1: Implement Sustainable Planning and Development Practices

Strategy No. 1: Support Sustainable Urban Development Patterns

LU Policy 1-3: Require sustainable design strategies to be integrated into public and private development projects.

LU Policy 1-4: Require electric vehicle charging stations to be installed in new commercial, industrial, institutional and multiple-family residential development projects. Require that all parking for single-unit and two-unit residential development projects be capable of supporting future electric vehicle supply equipment.

LU Policy 1-6: Require that new building construction incorporate solar panels, vegetated surface, high albedo surface and/or similar roof structures to reduce net energy usage and reduce the heat island effect.

San Pedro Bay Ports' Clean Air Action Plan 2017

According to the San Pedro Bay Ports Clean Air Action Plan (CAAP), the CAAP is a landmark air quality plan that establishes the most comprehensive, far-reaching strategy for reducing port-related air pollution and related health risks while allowing port development, job creation, and economic activity associated with that development to continue (San Pedro Bay Ports 2017). The CAAP, a collaboration of the Port of Los Angeles and Port of Long Beach (Ports), ushered in a number of anti-air pollution strategies, including the Clean Truck Program, vessel pollution reduction programs, and advanced new technology, such as the world's first hybrid tugboat. The CAAP was initially adopted in 2006, with updates in 2010 and 2017.

The CAAP 2017 Update is a comprehensive strategy for accelerating progress toward a zero-emission future while protecting and strengthening the ports' competitive position in the global economy. Since 2005, port-related air pollution in San Pedro Bay, including diesel particulate matter, nitrogen oxides, and sulfur oxides, has dropped tremendously. The first phase of the Clean Trucks Program update requires any new truck registered in the Port Drayage Trucks Registry after Oct. 1, 2018, to be model year 2014 or newer. The 2010 CAAP set emission reduction targets for 2014 and 2023 for DPM, NO_X, and SO_X, compared to 2005 conditions. The Clean Truck Program would reduce port-related emissions by 22 percent for NO_X, 93 percent for SO_X, and 72 percent for DPM by 2014 and would reduce port-related emissions by 59 percent for NO_X, 93 percent for SO_X, and 77 percent for DPM by 2023. The 2017 CAAP Update does not alter these goals, and the Ports are fully committed to transitioning to zero emissions by 2035.

4.1.3 Impact Analysis

a. Methodology and Significance Thresholds

Methodology

Air pollutant emissions generated by construction and operation of the proposed project were estimated using 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 operations from a variety of land use projects. CalEEMod allows for the use of standardized data (e.g., emission factors, trip lengths, meteorology, source inventory) provided by the various California air districts to account for local requirements and conditions, and/or user-defined inputs. The calculation methodology and input data used in CalEEMod can be found in the CalEEMod User's Guide Appendices C, D, and G (California Air Pollution Control Officers Associated 2022). The analysis reflects the details of construction and operation of the proposed project as described in Section 2.0, *Project Description*.

Construction

Project construction would primarily generate temporary criteria pollutant emissions from construction equipment operation on-site, construction worker vehicle trips to and from the site, and import of materials off-site. Construction of the proposed project was analyzed based on the land use type and square footage provided by the applicant. Construction of the proposed project was assumed to begin in January 2025. Based on the applicant-provided land uses, CalEEMod provides assumptions for construction schedule, equipment lists, and vehicle trips. CalEEMod estimates construction would occur over approximately 28 months. The project site is vacant and project

construction would therefore not require or include a demolition phase. It is assumed one day of the architectural coating phase would overlap the building construction phase, which produces a conservative emission estimate. The proposed project would involve importing approximately 1,000 cubic yards of soil during the construction grading phase. In addition, approximately 74,769 square feet of asphalt would be removed from the site based on aerial Google Earth images. It is assumed the asphalt surfaces would be 4 inches deep; there would be approximately 5.24 hauling trips per day during the site preparation phase;[5] construction equipment used would be diesel-powered; and the project would comply with applicable regulatory standards such as SCAQMD Rule 403 for dust control measures and Rule 1113 for architectural coating VOC limits.

Operation

Operational emissions modeled include mobile and area source emissions. The proposed project would not include natural gas consumption and would not emit energy emissions onsite. The Traffic Impact Analysis (TIA) with VMT analysis prepared by Fehr & Peers, estimated the proposed project would generate 1,111 daily vehicle trips. Pursuant to the vehicle breakdown in the Traffic Impact Analysis (TIA), the vehicle fleet mix was adjusted for 823 passenger vehicles (LDA), 63 two-axle trucks (MHD), and 225 three-axle and over trucks (HHD) (Fehr & Peers 2023). Area source emissions are generated by landscape maintenance equipment, consumer products and architectural coatings. There currently is no natural gas service provided at the project site. Additionally, the City of Long Beach Climate Action Plan requires that all projects except heavy industry (but including light industrial projects such as the proposed project) must utilize 100 percent zero-carbon electricity on-site. Therefore, energy source emissions for natural gas are excluded.

Health Risk Assessment

The greatest potential for TAC emissions during construction would be DPM emissions associated with heavy-duty equipment during grading and building construction activities. In addition, incidental amounts of toxic substances such as oils, solvents, and paints would be used. These products would comply with all applicable SCAQMD rules for their manufacture and use. The project would be subject to several SCAQMD rules designed to limit exposure to TACs during construction activities.

The construction HRA was performed in accordance with the revised OEHHA Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2015). The OEHHA Guidance considers the sensitivity of children to TAC emissions, different breathing rates, and time spent at home. Children have a higher breathing rate compared to adults and would likely spend more time at home in nearby residences resulting in longer exposure durations.

The process of assessing health risks and impacts includes a degree of uncertainty. The level of uncertainty depends on the availability of data and the extent to which assumptions are relied upon in cases where the data are incomplete or unknown. All health risk assessments rely upon scientific studies to reduce the level of uncertainty; however, it is not possible to eliminate uncertainty from the analysis. Where assumptions are used to substitute for incomplete or unknown data, it is standard practice in performing health risk assessments to err on the side of health protection to avoid underestimating or underreporting the risk to the public. In general, sources of uncertainty that may lead to an overestimation or an underestimation of the risk include extrapolation of the toxicity data associated with animal exposure used to estimate exposure effects in humans and uncertainty in the

[5] The volume of asphalt surfaces removed (cubic feet) = (Length x Width x Depth); Volume of asphalt surfaces removed (cubic yards) = ((74,769 sf feet * 4 inches)/27 cubic feet per yard). Hauling Trips per day = ((923 cubic yards/16 hauling truck capacity)*2 one-way trips per haul trip)/22 site preparation days = 5.24 hauling trips per day.

exposure estimates. In addition to uncertainty, there exists "a natural range or variability in measured parameters defining the exposure scenario" and the fact that "the greatest quantitative impact is variation among the human population in such properties as height, weight, food consumption, breathing rates, and susceptibility to chemical toxicants" (OEHHA 2015). As mentioned previously, it is typical to err on the side of health protection by assessing risk on the most sensitive populations, such as children and the elderly, by modeling potential impacts based on high-end breathing rates, by incorporating age sensitivity factors (ASFs), and by not considering exposure reduction measures, such as mechanical air filtration building systems.

Dispersion Modeling

Dispersion modeling was performed using the U.S. EPA-approved AERMOD with meteorological data from the representative SCAQMD monitoring station located in Long Beach. SCAQMD specifically recommends that projects use the nearest representative SCAQMD meteorological station for modeling, which is usually the nearest station. The Long Beach Airport is the nearest representative meteorological station and is approximately 3.5 miles southeast of the project site. Emissions sources were located on the project site corresponding to the areas of construction and operational activity. Volume line sources were used to represent the construction emissions sources, truck routes and idling locations. Construction emissions would not be generated during nighttime hours; therefore, the dispersion modeling allocates the emissions during active construction hours. Operational emissions were modeled for two shifts between 6 am and 9 pm.

Sensitive receptors identified for modeling were placed at the location of nearby sensitive land uses, which includes residential and school uses within 1,000 feet of the project site. This analysis focuses on residential impacts because residential exposure parameters, including age sensitivity factors and childhood breathing rates, result in the maximum-case exposure scenario. Schools were modeled as residential receptors as it is assumed that some students of these schools would live within 1,000 feet of the project site, therefore increasing risk exposure for those students. By modeling the school as a residential receptor, the potential maximum risk for students is conservatively shown. Worker risk was also determined for industrial and commercial sources within 1,000 feet of the project site. Those sites not specifically modeled would result in risk that would be less than the risk modeled for those receptors included in the analysis due to increased dispersion of pollutants at distances greater than the 1,000-foot radius. Specifically, the analysis accounts for the residential receptors located approximately 500 feet northwest of the project site northwest of the rail line and southeast of the intersection of Santa Fe Avenue and E. Dominguez Street; the residential community west of Santa Fe Avenue; and the residential community south of the I-405 and north of Cameron Street between Hesperian Avenue and the 710 Freeway, which would be impacted by truck trips. In addition, the analysis takes into account risk for the Dominguez Elementary School, and the Rancho Dominguez Preparatory School which are located approximately 640 feet west and 550 feet west of the project site respectively.

Cancer Risk

Health risk impacts are assessed using health risk calculation methodology consistent with the 2015 OEHHA Guidance. This health risk assessment addresses construction DPM emissions and the effects on nearby sensitive uses (residential).

Health impacts are evaluated using a dose-response assessment, which describes the relationship between the level of exposure to a substance (i.e., the dose) and the incidence or occurrence of injury (i.e., the response). To determine the total dose to off-site sensitive receptors, the applicable

pathways of exposure should be identified. The applicable exposure pathways (e.g., inhalation) are identified for the emitted substances, and the receptor locations are identified. The applicable exposure pathways determine the exposure algorithms that are used to estimate dose. After the exposure pathways are identified, the applicable fate and transport algorithms are used to estimate concentrations in the applicable exposure media (e.g., air) and the exposure algorithms are used to determine the substance-specific dose. In accordance with the OEHHA Guidance, the inhalation pathway was evaluated for construction-related and operational DPM. For the inhalation pathway, the dose is directly proportional to the breathing rate. As a conservative (i.e., health protective) approach, maximum breathing rates were used in this analysis.

Once dose is calculated, cancer risk is calculated by accounting for cancer potency of the specific pollutant, age sensitivity, exposure duration, averaging time for lifetime cancer risk, and fraction of time spent at home (sensitive receptor). The cancer potency factor (CPF) is specific for each pollutant and is determined through peer-reviewed scientific studies. For example, the Scientific Review Panel recommends a CPF for DPM of 3.0×10-4 (μg/m^3)-1 and a slope factor of 1.1 (ppm-day)-1.[6] The ASFs account for greater susceptibility in early life as compared to adult exposure, starting from the third trimester of pregnancy to 16 years. The fraction of time at home (FAH) takes into account the time actually residing at the sensitive receptor location. FAH also takes into account time spent at home for various age groups. For example, newborns are expected to reside at home for longer periods of time compared to school-age children, and the elderly (retirees) are expected to spend more time at home compared to people of working age. FAH consistent with OEHHA guidelines were used for the analysis. As there is a school within the 1,000-foot buffer, FAH was assumed to be 1 for all receptors under 17 years of age.

Each age group has different exposure parameters which require cancer risk to be calculated separately for each age group. The estimation of cancer risk uses the following algorithms:

Risk = Dose inhalation × Inhalation CPF × ASF (Equation 1)

Where:

Dose inhalation = CAIR × DBR × A × EF × ED × FAH/AT (Equation 2)

Inhalation CPF = inhalation cancer potency factor

ASF = age-sensitivity factor

Where:

CAIR = concentration of compound in air in micrograms per cubic meter (μg/m3)

DBR = breathing rate in liter per kilogram of body weight per day (L/kg-body weighty/day)

A = inhalation absorption factor (1 for DPM)

EF = exposure frequency in days per year (day/year)

ED = exposure duration in years (year)

FAH = fraction of time at home

AT = averaging time period over which exposure is averaged in days (day)

[6] CPF and slope factors are built into the HARP2 model used for quantifying risk.

The OEHHA recommended values for the equations and daily breathing rates (DBF) described above were used in the HRA. Specific modeling details are included in Appendix E.

The incremental increase in cancer risk is the result of multiplying the dose by the pollutant-specific CPF values. Cancer risk is calculated by multiplying the inhalation dose by the inhalation CPF to yield the potential inhalation excess cancer risk. Cancer risk was evaluated for residences in the surrounding area. Risk for all receptors as well as modeling output is included as part of Appendix F of this EIR.

Non Cancer Risk

Non-cancer chronic impacts were assessed based on the hazard index (HI). The evaluation of chronic impacts is based on the maximum annual emissions over a 12-month period of construction activity. The chronic HI is calculated by dividing the maximum modeled annual average concentration at the maximum impacted sensitive receptor by the recommended exposure limit (REL). The REL is the concentration at or below which no adverse health effects are anticipated. For example, OEHHA has recommended an ambient concentration of 5 $\mu g/m^3$ as the chronic inhalation REL for DPM exhaust. Therefore, a sensitive receptor exposed to an annual average DPM concentration of 5 $\mu g/m^3$ or less would not result in a chronic impact. Non-cancer chronic impacts affect specific target organ systems (also called toxicological endpoints), such as the eye, nervous system, reproductive system, and respiratory system. The chronic health impact with the maximum HI for the same target organ system is used for impact determination.

Significance Thresholds

To determine whether a project would result in a significant impact to air quality, Appendix G of the *CEQA Guidelines* requires consideration of whether a project would do any of the following:

1. Conflict with or obstruct implementation of the applicable air quality plan
2. 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
3. Expose sensitive receptors to substantial pollutant concentrations
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people

The *CEQA Guidelines* further state that the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the determinations above. The Initial Study Notice of Preparation (IS-NOP) (Appendix A) prepared for the proposed project found impacts related to conflicts with an applicable air quality plan and other emissions such as those leading to odors to be less than significant, but found that impacts from emissions from construction and operation of the proposed project are potentially significant because they may exceed SCAQMD's regional and localized significance thresholds and expose sensitive receptors to additional pollutant concentrations. Therefore, Thresholds 1 and 4 are not studied further in this section. Thresholds 2 and 3 are further analyzed below.

SCAQMD Significance Thresholds

The SCAQMD recommends quantitative regional significance thresholds for temporary construction activities and long-term project operation in the SCAB. These thresholds, shown in Table 4.1-4, are used to evaluate a project's potential air quality impacts.

Table 4.1-4 SCAQMD Air Quality Significance Thresholds

Pollutant	Construction (pounds per day)	Operation (pounds per day)
NO_x	100	55
VOC	75	55
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_x	150	150
CO	550	550

NO_x = Nitrogen Oxides; VOC = Volatile Organic Compounds; PM_{10} = Particulate Matter with a diameter no more than 10 microns; $PM_{2.5}$ = Particulate Matter with a diameter no more than 2.5 microns; SO_x = Sulfur Oxide; CO = Carbon Monoxide

Source: SCAQMD 2023b

Localized Significance Thresholds

In addition to the above regional thresholds, the SCAQMD has developed Localized Significance Thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4), which was prepared to update the *CEQA Air Quality Handbook* (1993). LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities and have been developed for NO_X, CO, PM_{10}, and $PM_{2.5}$. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each SRA, distance to the sensitive receptor, and project size. LSTs have been developed for emissions within site areas that measure one, two, or five acres. If a site is greater than five acres, SCAQMD recommends a dispersion analysis be performed. Dispersion analyses were performed for the proposed project as part of the HRA. LSTs only apply to emissions in a fixed stationary location (such as fugitive dust, equipment exhaust, and operational energy and area sources) and are not applicable to mobile sources, such as cars on a roadway (SCAQMD 2008, 2009).

The project site is within SRA 4 (South Coastal LA County). SCAQMD provides LST lookup tables for project sites that measure one, two, or five acres. The project site is approximately 26.47 acres; therefore, the LST analysis conservatively uses five-acre LSTs. LSTs are provided for receptors at a distance of 82 feet (25 meters) 164 feet (50 meters), 328 feet (100 meters), 656 (200 meters), 1,640 feet (500 meters) from the project disturbance boundary to the sensitive receptors. The border of construction activity would occur approximately 340 feet (165 meters) southeast of single-family residences. Therefore, the analysis below uses the LST values for 328 feet (100 meters) to conservatively evaluate emissions. LSTs for construction and operations in SRA 4 on a five-acre site with a receptor 328 feet away are shown in Table 4.1-5.

Table 4.1-5 SCAQMD LSTs for Construction and Operation

	Allowable Emissions for a five-Acre Site in SRA-4 for a Receptor 328 Feet Away (pounds per day)	
Pollutant	**Construction**	**Operation**
Gradual conversion of NO_x to NO_2	70[1]	70[1]
CO	2,613	2,613
PM_{10}	58	14
$PM_{2.5}$	14[2]	4[2]

NO_x = Nitrogen Oxides; NO_2 = Nitrogen Dioxide; CO = Carbon Monoxide; PM_{10} = Particulate Matter with a diameter no more than 10 microns; $PM_{2.5}$ = Particulate Matter with a diameter no more than 2.5 microns

[1] The screening criteria for NOx were developed based on the 1-hour NO_2 CAAQS of 0.18 ppm. Subsequently to publication of the SCAQMD's guidance the USEPA has promulgated a 1-hour NO_2 NAAQS of 0.100 ppm. This is based on a 98th percentile value, which is more stringent than the CAAQS. Because SCAQMD's LSTs have not been updated to address this new standard, to determine if project emissions would result in an exceedance of the 1-hour NO_2 NAAQS, an approximated LST was estimated to evaluate the federal 1-hour NO_2 standard. The revised LST threshold is calculated by scaling the NO_2 LST by the ratio of 1-hour NO_2 standards (federal/state) (i.e., 126 lbs./day * (0.10/0.18) =70 lbs./day).

[2] The screening criteria for $PM_{2.5}$ were developed based on an Annual CAAQS of 15 mg/m^3. Subsequently to publication of the SCAQMD's guidance the annual standard was reduced to 12 mg/m^3. Because SCAQMD's LSTs have not been updated to address this new standard, to determine if project emissions would result in an exceedance of the annual $PM_{2.5}$ CAAQS, an approximated LST was estimated. The revised LST threshold is calculated by scaling the $PM_{2.5}$ LST by the ratio of 24-hour $PM_{2.5}$ standards (federal/state) (i.e., 18 and 5 lbs./day * (12/15) =14.4 and 4 lbs./day).

Source: SCAQMD 2009

Toxic Air Containments Thresholds

SCAQMD has developed significance thresholds for the emissions of TACs based on health risks associated with elevated exposure to such compounds. For carcinogenic compounds, cancer risk is assessed in terms of incremental excess cancer risk. A project would result in a potentially significant impact if it would generate an incremental excess cancer risk of 10 in one million (1×10^{-6}) or a cancer burden of 0.5 excess cancer cases in areas exceeding one in one million risks. Additionally, non-carcinogenic health risks are assessed in terms of a hazard index. A project would result in a potentially significant impact if it would result in a chronic and acute hazard index greater than 1.0 (SCAQMD 2023b).

b. Project Impacts and Mitigation Measures

Threshold 2: 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?

Impact AQ-1 CONSTRUCTION AND OPERATION OF THE PROPOSED PROJECT WOULD NOT EXCEED SCAQMD'S REGIONAL THRESHOLDS OF SIGNIFICANCE; THEREFORE, THE PROPOSED PROJECT WOULD NOT RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF ANY CRITERIA POLLUTANT FOR WHICH THE REGION IS IN NONATTAINMENT UNDER APPLICABLE FEDERAL OR STATE AMBIENT AIR QUALITY STANDARDS, AND IMPACTS RELATED TO CONSTRUCTION AND OPERATION WOULD BE LESS THAN SIGNIFICANT.

Construction Emissions

Construction of the proposed would generate temporary air pollutant emissions associated with fugitive dust (PM_{10} and $PM_{2.5}$) and exhaust emissions from heavy construction equipment and construction vehicles, in addition to VOC emissions that would be released during the drying of

architectural coating and paving phases. Table 4.1-6 summarizes the estimated maximum daily emissions of pollutants during proposed project construction. As shown therein, construction-related emissions would not exceed SCAQMD thresholds. Because it is assumed that the architectural coating phase duration would be at least 38 or more constructions days, which would avoid exceeding SCAQMD VOC regional thresholds, use of low VOC coating is encouraged to reduce VOC emissions but is not required. Proposed project construction would not 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. Construction emissions impacts would be less than significant.

Table 4.1-6 Proposed Project Construction Emissions

	Maximum Daily Emissions (lbs./day)					
Year	**VOC**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
2025	3	32	31	<1	9	5
2026	2	14	30	<1	4	1
2027	75[1]	15	30	<1	5	1
SCAQMD Regional Thresholds	75	100	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

lbs/day = pounds per day; VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; PM_{10} = particulate matter with a diameter no more than 10 microns; $PM_{2.5}$ = particulate matter with a diameter no more than 2.5 microns; SO_x = sulfur oxide

Notes: Some numbers may not add up precisely due to rounding considerations. Maximum on-site emissions are the highest emissions that would occur on the project site from on-site sources, such as heavy construction equipment and architectural coatings, and excludes off-site emissions from sources such as construction worker vehicle trips and haul truck trips.

[1] Maximum VOC emissions per day in construction year 2027 is approximately 74.8 lbs/day. Due to rounding, 75 lbs/day is displayed in the table.

Source: Table 2.1 "Overall Construction-mitigated" emissions. Highest of Summer and Winter emissions results are shown for all emissions. See CalEEMod worksheets in Appendix F.

Operational Emissions

Operation of the proposed project would generate criteria air pollutant emissions associated with area sources (e.g., architectural coatings, consumer products, and landscaping equipment) and mobile sources (i.e., vehicle trips to and from the project site). Table 4.1-7 summarizes the project's maximum daily operational emissions by emission source. As shown therein, operational emissions would not exceed SCAQMD regional thresholds for criteria pollutants. Therefore, project operation would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment, and impacts would be less than significant.

Table 4.1-7 Proposed Project Operational Emissions

Emission Source	Maximum Daily Emissions (lbs/day)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Mobile	5	9	32	<1	7	2
Area	17	<1	24	<1	<1	<1
Project Emissions	**22**	**10**	**56**	**<1**	**7**	**2**
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

lbs/day = pounds per day; VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; PM_{10} = particulate matter with a diameter no more than 10 microns; $PM_{2.5}$ = particulate matter with a diameter no more than 2.5 microns; SO_x = sulfur oxide

Notes: Some numbers may not add up precisely due to rounding considerations.

Source: Table 2.2 "Overall Operation-Mitigated" emissions. Highest of Summer and Winter emissions results are shown for all emissions. The mitigated emissions account for project sustainability features and/or compliance with specific regulatory standards. No mitigation measures are required for this project. See CalEEMod worksheets in Appendix F.

Mitigation Measures

Impacts would be less than significant, so no mitigation is required.

Threshold 3: Would the project expose sensitive receptors to substantial pollutant concentrations?

Impact AQ-2 THE PROPOSED PROJECT WOULD NOT EXCEED SCAQMD LOCALIZED THRESHOLDS OF SIGNIFICANCE AND TOXIC AIR CONTAINMENTS THRESHOLDS FOR CANCER AND CHRONIC RISK. THEREFORE, THE PROPOSED PROJECT WOULD NOT EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS IN THE FORM OF TOXIC AIR CONTAMINANT EMISSIONS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

As discussed under Section 4.1.1, *Setting*, the closest sensitive receptor are single-family residences located approximately 540 feet northwest of the project site. Localized air quality impacts to sensitive receptors typically result from criteria pollutants and TACs, which are discussed in the following subsections.

Localized Significance Thresholds

SCAQMD's *Final LST Methodology* was developed to be used as a tool to analyze localized air quality impacts associated with project-level development. If the calculated emissions for construction or operation of the proposed project are below the LST emission levels found on the LST mass rate look-up tables (Appendix C of *Final LST Methodology;* SCAQMD 2009) and no potentially significant impacts to air quality are found to be associated with other environmental issues, then the proposed construction or operation activity is not significant for air quality. The project analysis assumes main construction activity would occur approximately 340 feet southeast of single-family residences. The allowable emission for the proposed project utilizes the 328 feet receptor distance[7], and the project site is in SRA 4 (South Coastal LA County). Table 4.1-8 summarizes the proposed project's maximum localized daily construction emissions. As shown therein, localized construction emissions would not

[7] See the *Localized Significance* discussion within the *SCAQMD Significance Thresholds* subsection of Section 4.1.3, *Impact Analysis* for an explanation of why this distance was chosen.

exceed SCAQMD LST thresholds. Therefore, localized criteria pollutant emissions impacts from project construction would be less than significant.

Table 4.1-8 Proposed Project LST Construction and Operational Emissions

	Pollutant (lbs./day)			
Year	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Maximum Construction Onsite Emissions	32	30	9	5
SCAQMD LST	70	2,613	58	14
Threshold Exceeded?	**No**	**No**	**No**	**No**
Maximum Operational Onsite Emissions	<1	24	<1	<1
SCAQMD LST	70	2,613	14	4
Threshold Exceeded?	**No**	**No**	**No**	**No**

lbs/day = pounds per day; VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; PM_{10} = particulate matter with a diameter no more than 10 microns; $PM_{2.5}$ = particulate matter with a diameter no more than 2.5 microns; SO_x = sulfur oxide

Notes: Some numbers may not add up precisely due to rounding considerations. Maximum onsite emissions are the highest emissions that would occur on the project site from onsite sources, such as heavy construction equipment and architectural coatings, and excludes off-site emissions from sources such as construction worker vehicle trips and haul truck trips

Source: CalEEMod worksheets in Appendix F, see Table 3.2 – 3.6 "Overall Construction-mitigated" emissions. Highest of Summer and Winter emissions results are shown for all emissions. The mitigated emissions account for project sustainability features and/or compliance with specific regulatory standards.

Toxic Air Contaminants

Construction Impacts

A Health Risk Assessment was prepared for the proposed project. The maximum unmitigated risk from construction of the proposed project was identified for all sensitive (residential and school) receptors as well as worker receptors within 1,000 feet of the project site boundary as detailed in Appendix E of the EIR. The maximum off-site residential cancer risk would be 1.03 in one million at the residential receptors along E. Van Buren Street to the northwest of the site. The maximum off-site school cancer risk would be 1.60 in one million on the eastern border of the Rancho Dominguez Preparatory School where the school site meets Dominguez Park. Maximum off-site worker cancer risk would be 0.13 in one million at the Mercedes Benz R&D facility directly east of Via Oro Avenue. The maximum off-site residential chronic risk would have a hazard index of 0.0023 at the residential receptors along E. Van Buren Street to the northwest of the site. The maximum off-site school chronic risk would have a hazard index of 0.0034 on the eastern border of the Rancho Dominguez Preparatory School where the school site meets Dominguez Park. The maximum off-site worker chronic risk would have a hazard index of 0.017 at the Kilimanjaro facility directly north of the project site. None of these cancer or chronic risk numbers would exceed the regulatory threshold of 10 in one million for cancer risk or hazard index of 1 for chronic risk. Given that neither the cancer risk nor the chronic risk would exceed regulatory thresholds, risk from construction of the proposed project would be less than significant.

Operational Impacts

The maximum unmitigated risk from operation of the proposed project was identified for all sensitive (residential and school) receptors as well as worker receptors within 1,000 feet of the project site boundary as detailed in Appendix E of the EIR. The maximum off-site residential cancer risk would be 0.73 in one million at the residential receptors north of Wardlow Road between Wardlow Road and

the 405 Freeway. The maximum off-site school cancer risk would be 0.52 in one million on the southern border of the Rancho Dominguez Preparatory School just north of Carson Street. Maximum off-site worker cancer risk would be 0.17 in one million at the Metro A Line Yard east of the project site and directly east of the 710 Freeway. The maximum off-site residential chronic risk would have a hazard index of 0.0002 at the residences north of Wardlow Road between Wardlow Road and the 405 Freeway. The maximum off-site school chronic risk would have a hazard index of 0.0001 on the southern border of the Rancho Dominguez Preparatory School just north of Carson Street. The maximum off-site worker chronic risk would have a hazard index of 0.005 at the Metro A Line Yard east of the project site and directly east of the 710 Freeway. None of these operational cancer or chronic risk numbers would exceed the regulatory threshold of 10 in one million for cancer risk or a hazard index of 1 for chronic risk. Given that neither the cancer risk nor the chronic risk would exceed regulatory thresholds, risk from operation of the proposed project would be less than significant.

Combined Construction and Operational Impacts

The maximum unmitigated combined risk from construction and operation of the proposed project was identified for all sensitive (residential and school) receptors as well as worker receptors within 1,000 feet of the project site boundary as detailed in Appendix E of this EIR. The maximum off-site residential cancer risk would be 1.24 in one million at the residential receptors along E. Van Buren Street to the northwest of the site. The maximum off-site school cancer risk would be 1.87 in one million on the eastern border of the Rancho Dominguez Preparatory School where the school site meets Dominguez Park. Maximum off-site worker cancer risk would be 0.24 in one million at the Metro A Line Yard located east of the project site and directly east of the 710 Freeway. The maximum off-site residential chronic risk would be 0.0023 at the residential receptors along E. Van Buren Street to the northwest of the project site. The maximum off-site school chronic risk would be 0.0034 on the eastern border of the Rancho Dominguez Preparatory School where the school site meets Dominguez Park. The maximum off-site worker chronic risk would be 0.017 at the Kilimanjaro facility directly north of the project site. None of these cancer or chronic risk numbers would exceed the regulatory threshold of 10 in one million for cancer risk or 1 for chronic risk. Given that neither the cancer or chronic risk would exceed regulatory thresholds, combined risk from construction and operation of the proposed project would be less than significant.

CO Hotspots

A CO hotspot is a localized concentration of CO that is above a CO ambient air quality standard. The SCAB has been attaining federal CO standards since 2007, and most air quality monitoring stations no longer report CO levels (SCAQMD 2017). The closest SCAQMD monitoring stations in SRA 4 (South Coastal LA County) does not monitor maximum 1-hour and 8-hour CO.

As an example, a detailed carbon monoxide analysis was conducted during the preparation of the SCAQMD's 2003 AQMP. The locations selected for microscale modeling in the 2003 AQMP included high average daily traffic (ADT) intersections in the SCAB that are expected to experience the highest CO concentrations. The highest CO concentration observed was at the intersection of Wilshire Boulevard and Veteran Avenue on the west side of Los Angeles near Interstate 405, approximately 21 miles northwest of the project site. The concentration of CO at this intersection was 4.6 ppm, which is well below the State and federal standards. The Wilshire Boulevard/Veteran Avenue intersection had an ADT of approximately 100,000 vehicles per day at the time of the study (SCAQMD 2003a). According to the Traffic Impact Analysis for the proposed project (Appendix D), the highest project plus existing traffic volume conditions is the intersection of Santa Fe and Wardlow Road with

approximately 35,660 ADT.[8] This is well below the 100,000 ADT at the intersection studied by SCAQMD in the 2003 AQMP, which found that CO emissions at that intersection were below the federal standards. Therefore, the proposed project would not result in a CO hotspot and impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant, so no mitigation is required.

4.1.4 Cumulative Impacts

The geographic scope for the cumulative air quality impact analysis is the SCAB. Because the SCAB is designated a nonattainment area for the federal and State one-hour and eight-hour ozone standards, State PM_{10} standards, federal 24-hour $PM_{2.5}$ standard, and federal and State annual $PM_{2.5}$ standard, there is an existing adverse effect in the SCAB relative to these pollutants and additional, unplanned growth in the area has the potential to exacerbate the pollution and hinder the achievement of the NAAQS and CAAQS within the SCAB. As identified in Table 3-1, *Cumulative Project List,* in Section 3.3, *Cumulative Development*, there are ten currently planned and pending projects in Long Beach within one mile of the project site.

This cumulative impact analysis is based on the SCAQMD's recommendations included in their *CEQA Air Quality Handbook* and *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (SCAQMD 1993 and 2003b). Individual projects under the SCAQMD's jurisdiction would cause a cumulatively considerable increase in emissions for which the SCAB is in non-attainment if the individual project exceeds the SCAQMD's recommended thresholds.

Each related project listed in Section 3, *Environmental Setting*, would generate emissions during construction and operation. However, neither the proposed project nor any of the related projects are part of an ongoing regulatory program or are contemplated in a Program EIR. Therefore, as discussed in Appendix D of the SCAQMD's *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (SCAQMD 2003b), the SCAQMD recommends that project-specific air quality impacts be used to determine if a project's contribution to cumulative air quality impacts would be significant.

As discussed above, the proposed project would be consistent with the SCAQMD 2022 AQMP. Additionally, construction and operation of the proposed project would not exceed regional significance thresholds. Therefore, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment.

Cumulative projects could expose sensitive receivers to cancer risks exceed the SCAQMD 10 in one million threshold; however, similar to the proposed project, cumulative projects would be required to comply with SCAQMD regulations and thresholds to reduce the potential for significant impacts to sensitive receivers. As described under Impact AQ-3 above, construction TAC and localized emissions from the proposed project would be less than significant. Therefore, construction, operational, and combined construction and operational TAC risk and localized emissions would be below applicable SCAQMD thresholds and the proposed project's contribution to cumulative TAC and localized emissions would not be cumulatively considerable.

[8] Peak p.m. traffic counts between Santa Fe and Wardlow Road are estimated in Figure 10 of the Traffic Impact Analysis. Based on standard industry assumptions that peak hour is 10% of ADT, the highest traffic volume is 35,660 ADT.

4.2 Biological Resources

This section assesses potential impacts to biological resources from the proposed project, including special-status plant and wildlife species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife corridors and nursery sites, regionally protected resources (e.g., from county-wide Habitat Conservation Plans [HCPs] and Natural Community Conservation Plans [NCCPs]), and locally protected resources, such as protected trees. The assessment of existing conditions and analysis of impacts for biological resources is based on a literature and database review and field reconnaissance survey conducted by Rincon Consultants, Inc. on December 21, 2022, as detailed in the project's Biological Resources Assessment (BRA) (Rincon 2023b; Appendix G. A focused survey for burrowing owl (*Athene cunicularia*) and southern tarplant (*Centromadia parryi* ssp. *australis*) were concurrently conducted by two Rincon biologists on April 19, 2024, and existing conditions of the site documented. A tree survey conducted by a certified arborist and the project's Arborist Report and Tree Protection Plan (Rincon 2023a; Appendix B) also informed the analysis. The project's Biological Study Area (BSA) is defined as the 26.47-acre project site and a 100-foot survey buffer.

4.2.1 Setting

a. Regional and Project Site Setting

The project site is regionally located in the City of Long Beach, Los Angeles County, California. The City of Long Beach lies on the coastal plain of the Los Angeles Basin and is bordered on the northwest by the City of Los Angeles and on the southeast by Orange County. The regional climate within the basin is Mediterranean, characterized by warm summers, mild winters, infrequent seasonal rain fall, and year-round average temperature ranging from a cold season low of 46°F to a warm season high of 83°F. Average annual precipitation in the region is approximately 12 inches, with most of the annual precipitation occurring between the months of December and March.

The 26.47-acre project site is located on a vacant property directly across Via Oro Avenue from the current Intex Recreation Corporation building at 4001 Via Oro Avenue in the City of Long Beach. The site is bounded by West Carson Street to the south, the Long Beach Freeway (Interstate 710, or I-710) to the east, Via Oro Avenue to the west, and Via Plata Street to the north. The project site is regionally accessible from I-710 and the San Diego Freeway (Interstate 405, or I-405). Land uses in the area immediately surrounding the project site consists of commercial, residential, and light industrial uses. The project site is disturbed throughout by homeless activity and occasional use for flying remote control helicopters.

b. Physical Characteristics

Watershed, Topography, and Soils

The project site is located within the Compton Creek-Los Angeles River watershed (Hydrologic Unit Code-12 180701050402), approximately 0.5 mile south of the intersection of Compton Creek and the Los Angeles River. It is relatively flat and gently slopes northward, with elevations ranging from approximately 25 to 29 feet above mean sea level. According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey data for Los Angeles County, California (USDA NRCS 2022), one soil map unit occurs within the BSA: Urban land-Metz-Pico complex, 0 to 2 percent slopes. This soil type is not considered hydric.

Vegetation and Other Land Cover

Vegetation within the BSA consists almost entirely of non-native species. The center of the project site is covered by various brome grasses (*Bromus* sp.) and crown daisy, while the exterior of the project site consists of ornamental trees planted in the 1990s (HistoricAerials 2023). During the site visit on April 19, 2024, recent ground disturbance that included tilling and weed abatement within the limits of the project site was identified and documented. The results of the focused survey for southern tarplant indicated there was no evidence of southern tarplant on the site.

The project's Arborist Report and Tree Protection Plan (Rincon 2023a; Appendix B) identified 10 tree species in the BSA, none of which are native to California: Peruvian pepper (*Schinus molle*), silk floss (*Ceiba speciosa*), London planetree (*Platanus* x *hispanica*), Indian laurel (*Ficus microcarpa*), Indian coral tree (*Erythrina variegata*), carrotwood (*Cupaniopsis anacardioides*), Brazilian pepper (*Schinus terebinthifolia*), goldenrain (*Koelreuteria paniculata*), Mexican fan palm (*Washingtonia robusta*), and tree tobacco (*Nicotiana glauca*). All were observed to be growing at a mature height.

General Wildlife

Wildlife detected during the reconnaissance survey were common to the region and urban areas, including California ground squirrel (*Otospermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), mourning dove (*Zenaida macroura*), red-tailed hawk (*Buteo jamaicensis*), red-crowned parrot (*Amazona viridigenalis*), black phoebe (*Sayornis nigricans*), and killdeer (*Charadrius vociferus*). Additional wildlife observed during the site visit on April 19, 2024, included northern mockingbird (*Mimus polyglottos*), song sparrow (*Melospiza melodia*), European starling (*Sturnus vulgaris*), house finch (*Haemorhous mexicanus*), and Say's phoebe (*Sayornis saya*). The results of the focused survey for burrowing owl indicated there was no evidence of burrowing owl present on the site.

c. Special-Status Species

For the purposes of this analysis, special-status species include:

- Species listed as threatened or endangered under the federal Endangered Species Act (ESA) including proposed and candidate species
- Species listed as candidate, threatened, or endangered under the California Endangered Species Act (CESA)
- Species designated as Fully Protected by the California Fish and Game Code (CFGC), and Species of Special Concern or Watch List by the California Department of Fish and Wildlife (CDFW)
- Native Plant Protection Act (NPPA) – State Rare (SR)
- California Native Plant Society (CNPS) California Rare Plant Ranks (CRPR) 1A, 1B, 2A, and 2B
- Species designated as locally important by the City of Long Beach and/or otherwise protected through ordinance or local policy

A list of special-status plant and wildlife species with potential to occur on the site was developed based on a review of an 8-quad search of the California Natural Diversity Database (CNDDB; CDFW 2022a, 2022b) and the CNPS online Inventory of Rare and Endangered Vascular Plants of California; this list is provided in the BRA (Rincon 2023b; Appendix G).

Special-Status Plant Species

The CNDDB/CNPS query results include 32 special-status plant species recorded within the 8-quad search area. Special-status plant species typically have specialized habitat requirements, including plant community types, soils, and elevational ranges. Of the 32 species, none are expected to occur based on the project site's location and clear lack of suitable native habitat (e.g., coastal scrub, marshes, elevational ranges) and historic and current disturbances including routine weed abatement and mowing.

Special-Status Wildlife Species

The CNDDB query results include 10 special-status wildlife species within the 8-quad search area. The potential for special-status wildlife species to occur on the project site was assessed based on known distribution, habitat requirements, and existing site conditions. All 10 species were determined to have no potential to occur on the project site due to a lack of suitable habitat, which primarily consisted of non-native grasses and disturbed habitat.

d. Sensitive Natural Communities and Critical Habitat

No CDFW-designated sensitive natural communities or United States Fish and Wildlife Service (USFWS)-designated Critical Habitat occur on the project site.

e. Jurisdictional Waters and Wetlands

The BSA does not contain any potentially jurisdictional waters or wetlands as defined by Section 404 of the Clean Water Act (CWA; including, but not limited to, marsh, vernal pool, coastal, etc.); riparian habitat or streambed as defined by Section 1600 et seq. of the CFGC; or waters of the State, pursuant to Section 401 of the CWA or the Porter-Cologne Water Quality Control Act.

The closest features include a Los Angeles County Flood Control District flood control basin approximately 0.15 mile east of the project site and the concrete-lined Los Angeles River approximately 0.25 mile east of the project site on the other site of the flood control basin. Both features are separated from the project site by I-710 and the Metro A Line maintenance yard.

f. Wildlife Movement

The BSA does not contain any Natural Landscape Blocks or Essential Connectivity Areas (Spencer et al. 2010). However, it is 0.1 mile from several Natural Areas smaller than 2,000 acres (CNDDB 2022a). The closest natural areas are separated from the BSA by commercial developments, a rail line (for Dominguez Park) and the I-710 (for the Los Angeles River). Due to the project site's isolation, and disturbance from current human activity, the project site does not significantly contribute to wildlife movement in the region. Existing ornamental trees and shrubs on the site provide shelter and facilitate movement or urban-adapted wildlife on a smaller scale.

g. Protected Trees

Trees occurring within the City of Long Beach along City streets or on other City property are afforded protection under Section 14.28, *Trees and Shrubs* (Ordinance C-7642) of the Long Beach Municipal Code and through the City of Long Beach's Tree Maintenance Policy.

A survey of trees in the BSA was conducted by a Rincon certified arborist and Rincon biologists on December 19 and December 20, 2022. Of the 207 trees surveyed, 168 trees are in the public right-of-way and 39 are within the privately-owned project site (Rincon 2023a).

4.2.2 Regulatory Setting

Regulatory authority over biological resources is shared by federal, state, and local authorities under a variety of statutes and guidelines. Primary authority for biological resources lies within the land use control and planning authority of local jurisdictions (in this instance, the City of Long Beach). The CDFW is a trustee agency for biological resources throughout the state under the California Environmental Quality Act (CEQA) and also has direct jurisdiction under the CFGC. Under the State and Federal Endangered Species Act, the CDFW and the USFWS also have direct regulatory authority over species formally listed as Threatened or Endangered. The U.S. Army Corps of Engineers (USACE) has regulatory authority over specific biological resources, namely wetlands and waters of the United States, under Section 404 of the federal CWA. Statutes within the CWA, CFGC, and Regional Water Quality Control Boards (RWQCB) protect wetlands and riparian habitat.

a. Federal Regulations

United States Army Corps of Engineers

The USACE is responsible for administering several federal programs related to ensuring the quality and navigability of the nation's waters.

Clean Water Act Section 404

Congress enacted the CWA "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 404 of the CWA authorizes the Secretary of the Army, acting through the USACE, to issue permits regulating the discharge of dredged or fill materials into the "navigable waters at specified disposal sites."

Section 502 of the CWA further defines "navigable waters" as "waters of the United States, including the territorial seas." "Waters of the United States" are broadly defined at 33 CFR Part 328.3 to include navigable waters, perennial and intermittent streams, lakes, rivers, ponds, as well as wetlands, marshes, and wet meadows. In recent years the USACE and US Environmental Protection Agency (USEPA) have undertaken several efforts to modernize their regulations defining "waters of the United States" (e.g., the 2015 Clean Water Rule, 2020 Navigable Waters Protection Rule, and the most recent effort promulgated by the USACE and USEPA on January 18, 2023 (88 FR 3004-3144)), but these efforts have been frustrated by legal challenges which have invalidated the updated regulations. Thus, the agencies' longstanding definition of "waters of the United States," which dates from 1986, remains in effect although it is currently being interpreted consistent with the recent *Sackett v. Environmental Protection Agency* Supreme Court decision as described below. The USACE and USEPA have announced their intent to issue revised regulations defining "waters of the United States" by September 1, 2023.

WATERS OF THE U.S.

In summary, USACE and USEPA regulations define "waters of the United States" as follows:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide

2. All interstate waters including interstate wetlands
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
    i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
    ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
    iii. Which are used or could be used for industrial purpose by industries in interstate commerce
4. All impoundments of waters otherwise defined as waters of the United States
5. Tributaries of waters identified in paragraphs (a)(1)-(4) of this section
6. The territorial sea
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in items 1-6 above

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the USEPA.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA are not waters of the United States.

The lateral limits of USACE jurisdiction in non-tidal waters are defined by the "ordinary high-water mark" (OHWM) unless adjacent wetlands are present. The OHWM is a line on the shore or edge of a channel established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed upon the bank, shelving, changes in the character of soil, destruction of vegetation, or the presence of debris (33 CFR 328.3(c)(1)). As such, waters are recognized in the field by the presence of a defined watercourse with appropriate physical and topographic features. If wetlands occur within, or adjacent to, waters of the United States, the lateral limits of USACE jurisdiction extend beyond the OHWM to the outer edge of the wetlands (33 CFR 328.4 (c)). The upstream limit of jurisdiction in the absence of adjacent wetlands is the point beyond which the OHWM is no longer perceptible (33 CFR 328.4; see also 51 FR 41217).

WETLANDS

The USACE defines wetlands as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3(c)(1)). The USACE’s delineation procedures identify wetlands in the field based on indicators of three wetland parameters: hydrophytic vegetation, hydric soils, and wetland hydrology. The following is a discussion of each of these parameters.

Hydrophytic Vegetation

Hydrophytic vegetation dominates areas where frequency and duration of inundation or soil saturation exerts a controlling influence on the plant species present. Plant species are assigned wetland indicator status according to the probability of their occurring in wetlands. More than fifty

percent of the dominant plant species must have a wetland indicator status to meet the hydrophytic vegetation criterion. The USACE published the National Wetland Plant List (USACE 2018), which separates vascular plants into the following four basic categories based on plant species frequency of occurrence in wetlands:

- **Obligate Wetland (OBL).** Almost always occur in wetlands
- **Facultative Wetland (FACW).** Usually occur in wetlands, but occasionally found in non-wetlands
- **Facultative (FAC).** Occur in wetlands or non-wetlands
- **Facultative Upland (FACU).** Usually occur in non-wetlands, but may occur in wetlands
- **Obligate Upland (UPL).** Almost never occur in wetlands

The USACE considers OBL, FACW and FAC species to be indicators of wetlands. An area is considered to have hydrophytic vegetation when greater than 50 percent of the dominant species in each vegetative stratum (tree, shrub, and herb) fall within these categories. Any species not appearing on the USFWS's list is assumed to be an upland species, almost never occurring in wetlands. In addition, an area needs to contain at least 5% vegetative cover to be considered as a vegetated wetland.

Hydric Soils

Hydric soils are saturated or inundated for a sufficient duration during the growing season to develop anaerobic or reducing conditions that favor the growth and regeneration of hydrophytic vegetation. Field indicators of wetland soils include observations of ponding, inundation, saturation, dark (low chroma) soil colors, bright mottles (concentrations of oxidized minerals such as iron), gleying (indicates reducing conditions by a blue-grey color), or accumulation of organic material. Additional supporting information includes documentation of soil as hydric or reference to wet conditions in the local soils survey, both of which must be verified in the field.

Wetland Hydrology

Wetland hydrology is inundation or soil saturation with a frequency and duration long enough to cause the development of hydric soils and plant communities dominated by hydrophytic vegetation. If direct observation of wetland hydrology is not possible (as in seasonal wetlands), or records of wetland hydrology are not available (such as stream gauges), assessment of wetland hydrology is frequently supported by field indicators, such as water marks, drift lines, sediment deposits, or drainage patterns in wetlands.

LIMITATIONS ON JURISDICTION BASED ON SACKETT V. USEPA SUPREME COURT

On May 25, 2023, the Supreme Court issued its decision on the petition from the Sacketts, a family in Idaho that was subject to a compliance order from the USEPA for backfilling their lot near Priest Lake, which the USEPA claimed contained federally regulated wetlands. The wetlands in question were adjacent to a ditch that fed a creek that ultimately drained into Priest Lake, a navigable water body. The USEPA asserted that the Sacketts had violated the law by filling the wetlands on their property without a permit. The Court's decision addressed controversy over whether, and under what conditions, the CWA reaches navigable waters' tributaries or adjacent wetlands. The Supreme Court's decision in Sackett provides definitive guidance to the agencies in determining the limits of their CWA authority. Prioritizing a need for clarity and regulatory certainty, the Court set forth an interpretation of CWA jurisdiction that can be applied without the need for lengthy case-by-case evaluations. This interpretation will have the effect of reducing the CWA's geographic reach.

The Court decided:

- "Adjacent wetlands" are waters of the United States only if there is a continuous surface connection between the wetland and a navigable or relatively permanent water body, such that it is difficult to determine the boundary between the wetland and the water body. The opinion notes that "temporary interruptions to surface connection may sometimes occur because of phenomena like low tides or dry spells".
- The Significant Nexus Standard, introduced by the Court in prior decisions, is not mentioned in the CWA and should not be used. Additionally, the standard includes ecological factors whose use in determining jurisdiction is not supported by the statute.

Although jurisdiction over tributaries was not addressed by the Court, current agency guidance relies upon the Significant Nexus Standard to establish jurisdiction over tributaries that flow infrequently. In disallowing the use of that standard, the decision suggests that non-relatively permanent tributaries will be non-jurisdictional going forward, stating, "…the [Clean Water Act's] use of "waters" encompasses only those relatively permanent, standing or continuously flowing bodies of water forming geographical features that are described in ordinary parlance as streams, oceans, rivers, and lakes."

Rivers and Harbors Act Section 10

Section 10 of the Rivers and Harbors Act of 1899 requires authorization from the USACE for the construction of any structure in or over any navigable water of the United States. Structures or work outside the limits defined for navigable waters of the United States require a Section 10 permit if the structure or work affects the course, location, or condition of the water body. The law applies to any dredging or disposal of dredged materials, excavation, filling, re-channelization, or any other modification of a navigable water of the United States and applies to all structures and work. It further includes, without limitation, any wharf, dolphin, weir, boom breakwater, jetty, groin, bank protection (e.g. riprap, revetment, bulkhead), mooring structures such as pilings, aerial or subaqueous power transmission lines, intake or outfall pipes, permanently moored floating vessel, tunnel, artificial canal, boat ramp, aids to navigation, and any other permanent or semi-permanent obstacle or obstruction. It is important to note that Section 10 applies only to navigable waters, and thus does not apply to work in non-navigable wetlands or tributaries. In some cases, Section 10 authorization is issued by the USACE concurrently with CWA Section 404 authorization, such as when certain Nationwide Permits are used.

United States Fish and Wildlife Service

The USFWS implements several laws protecting the Nation's fish and wildlife resources, including the federal ESA (16 United States Code [USC] Sections 153 et seq.), the Migratory Bird Treaty Act (MBTA; 16 USC Sections 703-711), and the Bald and Golden Eagle Protection Act (16 USC Section 668).

Endangered Species Act

The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the federal ESA. Generally, the USFWS implements the federal ESA for terrestrial and freshwater species, while the NMFS implements the federal ESA for marine and anadromous species. Projects that would result in "take" of any threatened or endangered wildlife species, or a threatened or endangered plant species if occurring on federal land, are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation

Plan) of the federal ESA, depending on the involvement by the federal government in funding, authorizing, or carrying out the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. "Take" under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of the federal ESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 implements four international conservation treaties that the U.S. entered into with Canada in 1916, Mexico in 1936, Japan in 1972, and Russia in 1976. It is intended to ensure the sustainability of populations of all protected migratory bird species. The law has been amended with the signing of each treaty, as well as when any of the treaties were amended, such as with Mexico in 1976 and Canada in 1995. The MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the USFWS.

The list of migratory bird species protected by the law, in regulations at 50 CFR Part 10.13, is primarily based on bird families and species included in the four international treaties. A migratory bird species is included on the list if it meets one or more of the following criteria:

1. It occurs in the United States or U.S. territories as the result of natural biological or ecological processes and is currently, or was previously listed as, a species or part of a family protected by one of the four international treaties or their amendments
2. Revised taxonomy results in it being newly split from a species that was previously on the list, and the new species occurs in the United States or U.S. territories as the result of natural biological or ecological processes
3. New evidence exists for its natural occurrence in the United States or U.S. territories resulting from natural distributional changes and the species occurs in a protected family

In 2004, the Migratory Bird Treaty Reform Act limited the scope of the MBTA by stating the MBTA applies only to migratory bird species that are native to the United States or U.S. territories, and that a native migratory bird species is one that is present as a result of natural biological or ecological processes. The MBTRA requires the USFWS to publish a list of all nonnative, human-introduced bird species to which the MBTA does not apply, and an updated list was published in 2020. The 2020 update identifies species belonging to biological families referred to in treaties the MBTA implements but are not protected because their presence in the United States or U.S. territories is solely the result of intentional or unintentional human-assisted introductions.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act prohibits anyone, without a permit issued by the USFWS, from "taking" bald or golden eagles, including their parts (including feathers), nests, or eggs. The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."

"Disturb" means “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

b. State Regulations

Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) and nine RWQCBs have jurisdiction over “waters of the State,” which are defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code sec. 13050(e)). These agencies also have responsibilities for administering portions of the CWA.

Clean Water Act Section 401

Section 401 of the CWA requires an applicant requesting a federal license or permit for an activity that may result in any discharge into navigable waters (such as a Section 404 Permit) to provide state certification that the proposed activity will not violate state and federal water quality standards. In California, CWA Section 401 Water Quality Certification (Section 401 Certification) is issued by the RWQCBs and by the SWRCB for multi-region projects. The process begins when an applicant requests a pre-application meeting with the RWQCB, waits no less than 30 days, and then submits an application to the RWQCB and informs the USACE (or the applicable agency from which a license or permit was requested) that an application has been submitted. The USACE will then determine a “reasonable period of time” for the RWQCB to act on the application; this is typically 60 days for routine projects and longer for complex projects but may not exceed one year. Under current regulations, once initiated, the reasonable period of time cannot be stopped or paused. When the period has elapsed, if the RWQCB has not either issued or denied the application for Section 401 Certification, the USACE may determine that Certification has been waived and issue the requested permit. If a Section 401 Certification is issued it may include binding conditions, imposed either through the Certification itself or through the requested federal license or permit.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code section 13000 *et seq*.), the policy of the State is as follows:

- The quality of all the waters of the State shall be protected
- All activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason

- The State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation

The Porter-Cologne Act established nine RWQCBs (based on watershed boundaries) and the SWRCB, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The SWRCB provides program guidance and oversight, allocates funds, and reviews RWQCB decisions. In addition, the SWRCB allocates rights to the use of surface water. The RWQCBs have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The SWRCB and RWQCBs have numerous nonpoint source related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

Section 13260 of the Porter-Cologne Act requires any person discharging or proposing to discharge waste that could affect the quality of waters of the State to file a Report of Waste Discharge with the appropriate RWQCB. The RWQCB may then authorize the discharge, subject to conditions, by issuing Waste Discharge Requirements (WDRs). While this requirement was historically applied primarily to outfalls and similar point source discharges, the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*, effective May 2020, make it clear that the agency will apply the Porter-Cologne Act's requirements to discharges of dredge and fill material as well. The *Procedures* state that they are to be used in issuing CWA Section 401 Certifications and WDRs, and largely mirror the existing review requirements for CWA Section 404 Permits and Section 401 Certifications, incorporating most elements of the USEPA's *Section 404(b)(1) Guidelines*. Following issuance of the *Procedures*, the SWRCB produced a consolidated application form for dredge/fill discharges that can be used to obtain a CWA Section 401 Water Quality Certification, WDRs, or both.

NON-WETLAND WATERS OF THE STATE

The SWRCB and RWQCBs have currently not established regulations for field determinations of waters of the state except for wetlands. In many cases the RWQCBs interpret the limits of waters of the State to be bounded by the OHWM unless isolated conditions or ephemeral waters are present. However, in the absence of statewide guidance each RWQCB may interpret jurisdictional boundaries within their region and the SWRCB has encouraged applicants to confirm jurisdictional limits with their RWQCB before submitting applications. As determined by the RWQCB, waters of the State may include riparian areas or other locations outside the OHWM, leading to a larger jurisdictional area over a given water body compared to the USACE.

WETLAND WATERS OF THE STATE

Procedures for defining wetland waters of the State pursuant to the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* went into effect May 28, 2020. The SWRCB defines an area as wetland if, under normal circumstances:

1. The area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both
2. The duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and
3. The area's vegetation is dominated by hydrophytes or the area lacks vegetation

The SWRCB's Implementation Guidance for the Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State (2020), states that waters of the U.S. and waters of the State should be delineated using the standard USACE delineation procedures, taking into consideration that the methods shall be modified only to allow for the fact that a lack of vegetation does not preclude an area from meeting the definition of a wetland.

California Department of Fish and Wildlife

The CDFW derives its authority from the CFGC and administers several State laws protecting fish and wildlife resources and the habitats upon which they depend.

California Endangered Species Act

The CESA (CFGC Section 2050 et. seq.) prohibits take of state listed threatened or endangered. Take under CESA is defined as "Hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" (CFGC sec. 86). This definition does not prohibit indirect harm by way of habitat modification, except where such harm is the proximate cause of death of a listed species. Where incidental take would occur during construction or other lawful activities, CESA allows the CDFW to issue an Incidental Take Permit upon finding, among other requirements, that impacts to the species have been minimized and fully mitigated. Unlike the federal ESA, CESA's protections extend to candidate species during the period (typically one year) while the California Fish and Game Commission decides whether the species warrants CESA listing.

Native Plant Protection Act

The CDFW also has authority to administer the NPPA (CFGC Section 1900 et seq.). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare, and prohibits the take of listed plant species. Effective in 2015, CDFW promulgated regulations (14 CCR 786.9) under the authority of the NPPA, establishing that the CESA's permitting procedures would be applied to plants listed under the NPPA as "Rare." With this change, there is little practical difference for the regulated public between plants listed under CESA and those listed under the NPPA.

Fully Protected Species Laws

The CDFW enforces Sections 3511, 4700, 5050, and 5515 of the CFGC, which prohibits take of species designated as Fully Protected. Under Senate Bill 147, effective July 1, 2023, the CDFW is allowed to issue an Incidental Take Permit for Fully Protected species under CESA through December 31, 2033, or take can be authorized by a NCCP which is in place that authorizes take of the Fully Protected species.

Avian Protection Laws

The CFGC sections 3503, 3503.5, and 3513 describe unlawful take, possession, or destruction of native birds, nests, and eggs. Section 3503.5 of the Code protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs. Section 3513 makes it a state-level offense to take any bird in violation of the federal MBTA.

Protection of Lakes and Streambeds

The CFGC section 1602 states that it is unlawful for any person to "substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any

river, stream, or lake" without first notifying the CDFW of that activity. Thereafter, if CDFW determines and informs the entity that the activity will not substantially adversely affect any existing fish or wildlife resources, the entity may commence the activity. If, however, CDFW determines that the activity may substantially adversely affect an existing fish or wildlife resource, the entity may be required to obtain from CDFW a Streambed Alteration Agreement (SAA), which will include reasonable measures necessary to protect the affected resource(s), before the entity may conduct the activity described in the notification. Upon receiving a complete Notification of Lake/Streambed Alteration, CDFW has 60 days to present the entity with a Draft SAA. Upon review of the Draft SAA by the applicant, any problematic terms are negotiated with CDFW and a final SAA is executed.

The CDFW has not defined the term "stream" for the purposes of implementing its regulatory program under Section 1602, and the agency has not promulgated regulations directing how jurisdictional streambeds may be identified, or how their limits should be delineated. However, four relevant sources of information offer insight as to the appropriate limits of CDFW jurisdiction as discussed below.

- **The plain language of Section 1602 of CFGC** establishes the following general concepts:
  - References "river," "stream," and "lake"
  - References "natural flow"
  - References "bed," "bank," and "channel"
- **Applicable court decisions**, in particular *Rutherford v. State of California* (188 Cal App. 3d 1276 (1987), which interpreted Section 1602's use of "stream" to be as defined in common law. The Court indicated that a "stream" is commonly understood to:
  - Have a source and a terminus
  - Have banks and a channel
  - Convey flow at least periodically, but need not flow continuously and may at times appear outwardly dry
  - Represent the depression between the banks worn by the regular and usual flow of the water
  - Include the area between the opposing banks measured from the foot of the banks from the top of the water at its ordinary stage, including intervening sand bars
  - Include the land that is covered by the water in its ordinary low stage
  - Include lands below the OHWM
- **CDFW regulations** defining "stream" for other purposes, including sport fishing (14 CCR 1.72) and streambed alterations associated with cannabis production (14 CCR 722(c)(21)), which indicate that a stream:
  - Flows at least periodically or intermittently
  - Flows through a bed or channel having banks
  - Supports fish or aquatic life
  - Can be dry for a period of time
  - Includes watercourses where surface or subsurface flow supports or has supported riparian vegetation

- **Guidance documents**, including *A Field Guide to Lake and Streambed Alteration Agreements* (CDFG 1994) and *Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants* (Brady and Vyverberg 2013), which suggest the following:
  - A stream may flow perennially or episodically
  - A stream is defined by the course in which water currently flows, or has flowed during the historic hydrologic course regime (approximately the last 200 years)
  - Width of a stream course can reasonably be identified by physical or biological indicators
  - A stream may have one or more channels (single thread vs. compound form)
  - Features such as braided channels, low-flow channels, active channels, banks associated with secondary channels, floodplains, islands, and stream-associated vegetation, are interconnected parts of the watercourse
  - Canals, aqueducts, irrigation ditches, and other means of water conveyance can be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife
  - Biologic components of a stream may include aquatic and riparian vegetation, all aquatic animals including fish, amphibians, reptiles, invertebrates, and terrestrial species which derive benefits from the stream system
  - The lateral extent of a stream can be measured in different ways depending on the particular situation and the type of fish or wildlife resource at risk

The tenets listed above, among others, are applied to establish the boundaries of streambeds in various environments. The importance of each factor may be weighted based on site-specific considerations and the applicability of the indicators to the streambed at hand.

c. Local Regulations

City of Long Beach, California

City of Long Beach Code of Ordinances

The City of Long Beach Municipal Code, Chapter 14.28 *Tree and Shrub Policy* (tree policy) Section (§) 22000 et seq. defines a tree as any woody plant, normally having one (1) stem or trunk, bearing the foliage or crown well above ground level to heights sixteen feet (16') or more upon maturity. No person shall plant, cut, trim, or remove, or in any way interfere with the natural growth of any tree planted along City streets or on other City property without having first obtained a permit from the Director of Public Works to do such work.

Section 14.28.020 states that the Director of Public Works shall regulate and control the planting or removal of trees planted along any City street. The Director shall designate the species, kind, number, spacing and method of planting.

The purpose of these regulations is to preserve and protect the community's urban forest and to promote the health and safety of the City's trees, from the time they are planted through maturity.

4.2.3 Impact Analysis

a. Methodology and Significance Thresholds

The impact analysis considers the direct and indirect impacts from project implementation to sensitive biological resources. The analysis of biological resource impacts is based on a review of applicable biological resource databases, plans and policies, aerial imagery, and a field survey site visit conducted on December 21, 2022, as detailed in the BRA (Rincon 2023b; Appendix G). The project's Arborist Report and Tree Protection Plan (Rincon 2023a; Appendix B) also informs the analysis. Focused surveys for burrowing owl and southern tarplant were completed on April 19, 2024 to document presence/absence of the species.

Impacts are defined as project-related activities that destroy, damage, alter, or otherwise affect biological resources. This may include injury or mortality to plant or wildlife species, effects on an animal's behavior (such as through harassment or frightening off an animal by construction noise), as well as the loss, modification, or disturbance of natural resources or habitats. Impacts are defined as either direct or indirect, and either permanent or temporary. This section includes a brief overview of the types of impacts analyzed.

- **Direct Impacts** are generally those that occur during project implementation and at the same time and location as the cause of the impact. Direct impacts for this project may include injury, death, and/or harassment of special-status wildlife species, if present in the work areas or vicinity. Direct impacts may also include the destruction of vegetation communities necessary for special-status species breeding, feeding, or sheltering. Direct impacts to plants can include crushing of plants, bulbs, or seeds where present in the impact areas
- **Indirect Impacts** are those that are reasonably foreseeable and caused by a project but occur later in time and/or potentially at locations of some distance from the source of the impact. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect impact. Specific examples for this project may include soil compaction that, in the future, following completion of the project, prevents wildlife from digging burrows or allows weedy plant species to thrive. Other examples may include dust that drifts outside of project disturbance areas and covers native plants, thereby decreasing their photosynthetic capacity, and unintentional introduction of invasive species (particularly weedy plant species that outcompete native plant species) that over time negatively affect the local ecology
- **Permanent Impacts** are those that result in the long-term or irreversible loss of biological resources. Grading a site to make way for urban development that will be present for years to come is an example of a permanent impact
- **Temporary Impacts** to biological resources are those that are reversible over time, either inherently or with implementation of mitigation measures. Examples include the generation of fugitive dust and noise during project implementation. These temporary impacts are anticipated to last during project implementation and shortly thereafter. However, the biological resources are anticipated to return to baseline conditions after project completion

Pursuant to the State *CEQA Guidelines* Appendix G Environmental Checklist, the proposed project would create a significant impact relative to biological resources if it would result in any of the following conditions:

1. Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service
3. 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
4. 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
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

b. Project Impacts and Mitigation Measures

Threshold 1:	**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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?**

Impact BIO-1 THE PROPOSED PROJECT WOULD HAVE NO IMPACT ON SPECIAL-STATUS PLANT OR WILDLIFE SPECIES DUE TO THE PROJECT SITE'S LACK OF SUITABLE HABITAT FOR SUCH SPECIES, ITS LOCATION, AND HISTORIC AND CURRENT DISTURBANCES.

As discussed in Section 4.2.1.c, *Special-Status Species*, the project site does not contain suitable habitat for any special-status plant or wildlife species. Special-status plant species are not expected to occur based on the project site's location and clear lack of suitable native habitat (e.g., coastal scrub, marshes, elevational ranges), and historic and current disturbances. Additionally, the project site was determined to not contain suitable habitat to support southern tarplant. Special-status wildlife species are not expected to occur based on known distribution, habitat requirements, and existing site conditions. Therefore, there would be no impact to candidate, sensitive, or special status species.

Mitigation Measures

There would be no impact, so no mitigation is required.

Impact BIO-2 BECAUSE THE PROJECT SITE CONTAINS SUITABLE NESTING, ROOSTING, AND FORAGING HABITAT FOR BIRD AND RAPTOR SPECIES PROTECTED BY THE MBTA AND CFGC, THE PROPOSED PROJECT HAS THE POTENTIAL TO IMPACT NESTING RAPTORS AND MIGRATORY BIRDS. IMPACTS WOULD BE MITIGATED TO A LESS THAN SIGNIFICANT LEVEL.

As discussed in Section 4.2.1.b, *Physical Characteristics*, the project site contains suitable nesting, roosting, and foraging habitat for bird and raptor species protected by the MBTA and CFGC Sections 3503, 3503.5, and 3513, including the ornamental, non-native trees on and adjacent to the project

site. Additionally, the project site was determined to not contain suitable habitat to support burrowing owl. Potential project impacts to nesting birds and raptors during construction include direct impacts, through harm or mortality to individuals or destruction of nests; and indirect impacts, through excessive noise or dust that disrupt nesting behaviors and/or failure of a nest. Therefore, the project site is considered suitable for nesting, roosting, and foraging habitat for birds and raptors and mitigation is required.

Mitigation Measures

BIO-1 Pre-construction Nesting Bird Surveys

The following is required to maintain compliance with CFGC Sections 3503 and 3503.5 and the MBTA with respect to nesting birds:

- If construction activities take place during the bird nesting season (generally February 1 through August 31, but variable based on seasonal and annual climatic conditions), nesting bird surveys shall be performed by a qualified biologist (a biologist with experience with avian species in the Los Angeles County region) and within seven days prior to project activities to determine the presence/absence, location, and status of any active nests on-site and within 100 feet of the site
- If nesting birds are found on-site, a construction buffer of appropriate size (as determined by the qualified biologist) shall be implemented around the active nests and demarcated with fencing or flagging. If ground/burrow nesting birds are identified, demarcation materials that do not provide perching habitat for predatory bird species shall be used. Nests shall be monitored at a minimum of once per week by the qualified biologist until it has been determined that the nest is no longer being used by either the young or adults. No ground disturbance shall occur within this buffer until the qualified biologist confirms that the breeding/nesting is complete, and all the young have fledged and are capable of surviving independently of the nest. If project activities must occur within the buffer, they shall be conducted at a distance that will prevent project-related disturbances, as determined by the qualified biologist

If no nesting birds are observed during pre-construction surveys and construction continues at the site without substantial delays (i.e. pause in activity of more than seven days) during the nesting season, no further actions are necessary. If the proposed project is phased or construction activities stop for more than seven days, a subsequent pre-construction nesting bird survey shall be conducted prior to each phase of construction, if initiated during the bird breeding season.

Significance After Mitigation

Implementation of Mitigation Measure BIO-1 would reduce impacts to nesting birds and raptors to a less than significant level.

Threshold 2:	Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
Threshold 3:	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?

Impact BIO-3 THE PROPOSED PROJECT WOULD HAVE NO IMPACT ON ANY RIPARIAN HABITAT, FEDERALLY OR STATE PROTECTED WETLANDS, OR OTHER SENSITIVE NATURAL COMMUNITIES BECAUSE THE PROJECT SITE DOES NOT CONTAIN, NOR IS IT ADJACENT TO, SUCH RESOURCES.

As discussed in Section 4.2.1.d, *Sensitive Natural Communities and Critical Habitat*, the project site does not contain any sensitive natural communities or critical habitats, nor is it adjacent to any. Therefore, no impact would occur.

Similarly, as discussed in Section 4.2.1.e, *Jurisdictional Waters and Wetlands*, the project site does not contain any state or federally protected waters or wetlands, nor is it adjacent to any. Therefore, no impact would occur.

Mitigation Measures

There would be no impact, so no mitigation is required.

Threshold 4:	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?

Impact BIO-4 THE PROPOSED PROJECT WOULD NOT HAVE A SUBSTANTIAL ADVERSE EFFECT ON WILDLIFE MOVEMENT DUE TO EXISTING DISTURBANCES ON THE PROJECT SITE. THIS IMPACT IS LESS THAN SIGNIFICANT WITHOUT MITIGATION.

As discussed in Section 4.2.1.a, *Regional and Project Site Setting* and Section 4.2.1.f, *Wildlife Movement*, the project site is surrounded by commercial developments on the north, west, and south and the I-710 to the east, and is disturbed by homeless encampments and occasional use for flying remote control helicopters. While the project site does provide shelter and facilitate movement of urban adapted wildlife on a smaller scale, due to the existing disturbances, construction of a new warehouse and distribution center as part of the proposed project would not significantly interfere with the movement of any native wildlife species. Temporary impacts from the removal of ornamental trees would be offset by the replacement of trees as discussed in Impact BIO-5. Therefore, impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant without mitigation, so no mitigation is required.

Threshold 5:	Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Impact BIO-5 BECAUSE THE PROPOSED PROJECT WOULD INVOLVE REPLACEMENT OF TREES THAT WOULD BE REMOVED, IN ACCORDANCE WITH THE CITY'S REQUIRED TREE REPLACEMENT RATIOS, IT WOULD NOT HAVE A SUBSTANTIAL ADVERSE EFFECT ON PROTECTED TREES. THIS IMPACT IS LESS THAN SIGNIFICANT WITHOUT MITIGATION.

In accordance with the City's Municipal Code Chapter 14.28 *Trees and Shrubs*, and pursuant to email correspondence with Long Beach City Planner, Amy L. Harbin, on August 25, 2022, the requirements for tree removal are listed below:

1. Removal of any tree in the public right-of-way requires replacement with one specimen. Each replacement tree shall be at least a 24" box, or larger specimen. Any trees in the public right-of-way must be replaced at an interval of every 25-feet on center
2. Removal of any tree on private property requires replacement with two specimens. Each replacement tree shall be at least a 24" box, or larger specimen

According to the Arborist Report and Tree Protection Plan (Rincon 2023a; Appendix B), of the 207 trees documented on the project site, the applicant proposes replacing 38 trees that will be removed from private property, and 101 trees that will be removed from the public right-of-way in accordance with the City's replacement ratios discussed above. The remaining 68 trees will be retained and protected in place. Project tree replacement details are included in the Arborist Report and Tree Protection Plan. Therefore, the proposed project would not conflict with any local policies or ordinances protecting biological resources.

Mitigation Measures

Impacts would be less than significant without mitigation, so no mitigation is required.

Threshold 6:	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?

Impact BIO-6 BECAUSE THE PROJECT SITE IS NOT IN ANY HCP, NCCP, OR OTHER APPROVED LOCAL, REGIONAL, OR STATE HABITAT CONSERVATION PLAN AREA, THE PROPOSED PROJECT WOULD NOT CONFLICT WITH ANY SUCH PLAN.

The project site is not located in any HCP, NCCP, or other approved local, regional, or state habitat conservation plan area (CDFW 2023, USFWS 2023). Therefore, the proposed project would not conflict with any existing conservation plans. No impact would occur.

Mitigation Measures

There would be no impact, so no mitigation is required.

4.2.4 Cumulative Impacts

Cumulative impacts for biological resources consider both localized and regional impacts. Section 3.3, *Cumulative Development* of this EIR contains both a list of currently planned and pending projects in the general vicinity, which includes residential, commercial, office buildings, and a fire station,

including 217,800 square feet of recreational space associated with a residential development. Significance for cumulative impacts to biological resources is based upon:

- The cumulative contribution of other approved and proposed development to fragmentation of open space in the project site's vicinity
- The loss of sensitive habitats and species
- Contribution of the proposed project to urban expansion into natural areas
- Isolation of open space within the proposed project by future projects in the vicinity

The proposed project's impacts on biological resources have been determined in this section of the EIR to be less than significant. Furthermore, the proposed project's contribution to cumulative land use change (caused by the proposed change in land use from a vacant lot consisting almost entirely of non-native species to a warehouse and distribution center in a commercial, residential, and light industrial area) would not be cumulatively considerable compared to the reduction and fragmentation of native habitats (including sensitive habitats), loss of native plant species diversity and populations, and reduction in native wildlife diversity and populations that has already occurred in this highly urbanized area. Therefore, the proposed project's contribution to cumulative impacts is not significant.

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4.3 Cultural Resources

This section of the EIR describes the affected environmental and regulatory setting for cultural resources on the project site, including the ethnographic, prehistoric, and historical settings of the project region; an evaluation of the existing cultural resources on the project site and its vicinity; the criteria used to evaluate significance of potential impacts on cultural resources; the methods used in evaluating these potential impacts; an analysis of potential impacts; and project-specific mitigation. The analysis presented in this section is based on the *Intex Corporate Office and Fulfillment Center Project Cultural Resources Assessment Report* prepared by Rincon Consultants, Inc. (Rincon) for the project, provided as Appendix H of this EIR. The project's potential impacts on tribal cultural resources are addressed in Section 4.12, *Tribal Cultural Resources*.

4.3.1 Setting

The project site lies in an urban area on essentially flat ground, within the Dominguez Gap, at an elevation of approximately 30-feet above sea level (U.S. Geological Survey Datum). The Dominguez Gap is a low lying area on the Los Angeles County Coastal Plain, bordered by the Dominguez Hills to the north and Signal Hill to the south, through which the Los Angeles River flows (LeRoy Crandall and Associates 1988).

The surface of the project site consists of artificial fill that extends to a depth of approximately 2.5-feet below existing grade. Native soils, existing below 2.5-feet are comprised of Holocene age alluvium deposits that reach depths of approximately 150-feet below existing grade, which overlies early Pleistocene age deposits of the San Pedro Formation. Native soils are comprised of poorly graded sand, silty sand, and sandy silty deposits, with some layers comprised of clay silt and silty clays (LeRoy Crandall and Associates 1988).

a. Prehistoric Setting

During the twentieth century, many archaeologists developed chronological sequences to explain prehistoric cultural changes within all or portions of southern California (c.f., Jones and Klar 2007; Moratto 1984). Wallace (1955, 1978) devised a prehistoric chronology for the southern California coastal region based on early studies and focused on data synthesis that included four horizons: Early Man, Milling Stone, Intermediate, and Late Prehistoric. Though initially lacking the chronological precision of absolute dates (Moratto 1984:159), Wallace's (1955) synthesis has been modified and improved using thousands of radiocarbon dates obtained by southern California researchers over recent decades (Byrd and Raab 2007:217; Koerper and Drover 1983; Koerper et al. 2002; Mason and Peterson 1994). The prehistoric chronological sequence for southern California presented below is a composite based on Wallace (1955) and Warren (1968) as well as later studies, including Koerper and Drover (1983).

Early Man Horizon (ca. 10,000 – 6,000 B.C.)

Numerous pre-8000 B.C. sites have been identified along the mainland coast and Channel Islands of southern California (c.f., Erlandson 1991; Johnson et al. 2002; Jones and Klar 2007; Moratto 1984; Rick et al. 2001:609). The Arlington Springs site on Santa Rosa Island produced human femurs dated to approximately 13,000 years ago (Arnold et al. 2004; Johnson et al. 2002). On nearby San Miguel Island, human occupation at Daisy Cave (SMI-261) has been dated to nearly 13,000 years ago and

included basketry greater than 12,000 years old, the earliest recorded on the Pacific Coast (Arnold et al. 2004).

Although few Clovis or Folsom style fluted points have been found in southern California (e.g., Dillon 2002; Erlandson et al. 1987), Early Man Horizon sites are generally associated with a greater emphasis on hunting than subsequent horizons. Recent data indicate that the Early Man economy was a diverse mixture of hunting and gathering, including a significant focus on aquatic resources in coastal areas (e.g., Jones et al. 2002) and on inland Pleistocene lakeshores (Moratto 1984). A warm and dry 3,000-year period called the Altithermal began around 6000 B.C. The conditions of the Altithermal are likely responsible for the change in human subsistence patterns at this time, including a greater emphasis on plant foods and small game.

Milling Stone Horizon (6000 – 3000 B.C.)

Wallace (1955:219) defined the Milling Stone Horizon as "marked by extensive use of milling stones and mullers, a general lack of well-made projectile points, and burials with rock cairns." The dominance of such artifact types indicate a subsistence strategy oriented around collecting plant foods and small animals. A broad spectrum of food resources were consumed including small and large terrestrial mammals, sea mammals, birds, shellfish and other littoral and estuarine species, near-shore fishes, yucca, agave, and seeds and other plant products (Kowta 1969; Reinman 1964). Variability in artifact collections over time and from the coast to inland sites indicates that Milling Stone Horizon subsistence strategies adapted to environmental conditions (Byrd and Raab 2007:220). Lithic artifacts associated with Milling Stone Horizon sites are dominated by locally available tool stone and in addition to ground stone tools, such as manos and metates, chopping, scraping, and cutting tools, are very common. Kowta (1969) attributes the presence of numerous scraper-plane tools in Milling Stone Horizon collections to the processing of agave or yucca for food or fiber. The mortar and pestle, associated with acorns or other foods processed through pounding, were first used during the Milling Stone Horizon and increased dramatically in later periods (Wallace 1955, 1978; Warren 1968).

Two types of artifacts that are considered diagnostic of the Milling Stone period are the cogged stone and discoidal, most of which have been found within sites dating between 4000 and 1000 B.C. (Moratto 1984:149), though possibly as far back as 5500 B.C. (Couch et al. 2009). The cogged stone is a ground stone object that has gear-like teeth on the perimeter and is produced from a variety of materials. The function of cogged stones is unknown, but many scholars have postulated ritualistic or ceremonial uses (c.f., Dixon 1968:64-65; Eberhart 1961:367). Similar to cogged stones, discoidals are found in the archaeological record subsequent to the introduction of the cogged stone. Cogged stones and discoidals were often purposefully buried, or "cached." They are most common in sites along the coastal drainages from southern Ventura County southward and are particularly abundant at some Orange County sites, although a few specimens have been found inland at Cajon Pass (Dixon 1968:63; Moratto 1984:149). Discoidals and cogged stones have been found together at some Orange County sites, such as CA-ORA-83/86/144 (Van Bueren et al. 1989:772) and Los Cerritos Ranch (Dixon 1975). Cogged stones have been collected in Riverside County and their distribution appears to center on the Santa Ana River basin (Eberhart 1961).

Mortuary practices observed at Milling Stone Horizon sites include extended and loosely flexed burials. Flexed burials oriented north were common in Orange and San Diego counties, with reburials common in Los Angeles County (Wallace 1955, 1978; Warren 1968).

Intermediate Horizon (3000 B.C. – 500 A.D.)

The Middle Archaic began with substantial climate change to much warmer, drier conditions. What is available of the Middle Archaic record has revealed a pattern of organized subsistence strategies and increased residential stability. The archetypal pattern of the Middle Archaic has been identified as the Windmiller Pattern. This pattern is represented by extended burials oriented to the west and a sophisticated material culture (Rosenthal et al. 2007). Middle Archaic sites are relatively common in the foothills surrounding the Central Valley and show relatively little change from the Lower Archaic (McGuire 1995).

During this time, the mortar and pestle become more widespread suggesting a shift toward more intensive subsistence practices. Fishing technologies, such as bone gorges, hooks, and spears, also appear during the Middle Archaic suggesting a new focus on fishing. Several other technologies also become apparent during this time. Baked-clay impressions of twined basketry, simple pottery, and other baked clay objects have been found at several sites. Personal adornment items additionally became more frequent. Exchange with outside groups is evidenced by the presence of obsidian, shell beads and ornaments (Rosenthal et al. 2007; Moratto 1984). Trade seemed to be focused on utilitarian items such as obsidian or finished obsidian tools from at least five separate sources (Moratto 1984).

Late Prehistoric Horizon (A.D. 500 – Historic Contact)

During Wallace's (1955, 1978) Late Prehistoric Horizon, the diversity of plant food resources and land and sea mammal hunting increased even further than during the Intermediate Horizon. More classes of artifacts were observed during this period and high quality exotic lithic materials were used for small finely worked projectile points associated with the bow and arrow. Steatite containers were made for cooking and storage and an increased use of asphalt for waterproofing is noted. More artistic artifacts were recovered from Late Prehistoric sites and cremation became a common mortuary custom. Larger, more permanent villages supported an increased population size and social structure (Wallace 1955:223).

Warren (1968) attributes this dramatic change in material culture, burial practices, and subsistence focus to the westward migration of desert people he called the Takic, or Numic, Tradition in Los Angeles, Orange, and western Riverside counties. This Takic Tradition was formerly referred to as the "Shoshonean wedge" (Warren 1968), but this nomenclature is no longer used to avoid confusion with ethnohistoric and modern Shoshonean groups (Heizer 1978:5; Shipley 1978:88, 90).

b. History

Post-European contact history for the state of California is generally divided into three periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present). Each of these periods is briefly described below. The project site is in Long Beach, and a brief history of the city is included below.

Spanish Period (1769-1822)

Spanish explorers made sailing expeditions along the coast of California between the mid-1500s and mid-1700s. Juan Rodriguez Cabrillo in 1542 led the first European expedition to observe what was known by the Spanish as Alta (upper) California. For more than 200 years, Cabrillo and other Spanish, Portuguese, British, and Russian explorers sailed the Alta California coast and made limited inland expeditions, but they did not establish permanent settlements (Bean 1968; Rolle 2003). The Spanish

crown laid claim to Alta California based on the surveys conducted by Cabríllo and Vizcaíno (Bancroft 1885; Gumprecht 1999).

By the 18th century, Spain developed a three-pronged approach to secure its hold on the territory and counter against other foreign explorers. The Spanish established military forts known as presidios, as well as missions and pueblos (towns) throughout Alta California. The 1769 overland expedition by Captain Gaspár de Portolá marks the beginning of California's Historic period, occurring just after the King of Spain installed the Franciscan Order to direct religious and colonization matters in assigned territories of the Americas. Portolá established the Presidio of San Diego as the first Spanish settlement in Alta California in 1769. Franciscan Father Junípero Serra also founded Mission San Diego de Alcalá that same year, the first of the 21 missions that would be established in Alta California by the Spanish and the Franciscan Order between 1769 and 1823 (Graffy 2010).

Construction of missions and associated presidios was a major emphasis during the Spanish Period in California to integrate the Native American population into Christianity and communal enterprise. Incentives were also provided to bring settlers to pueblos or towns; just three pueblos were established during the Spanish Period, only two of which were successful and remain as California cities (San José and Los Angeles).

Spain began making land grants in 1784, typically to retiring soldiers, although the grantees were only permitted to inhabit and work the land. The land titles technically remained property of the Spanish king (Livingston 1914).

Mexican Period (1822-1848)

Several factors kept growth within Alta California to a minimum, including the threat of foreign invasion, political dissatisfaction, and unrest among the indigenous population. After more than a decade of intermittent rebellion and warfare, New Spain (Mexico) won independence from Spain in 1821. In 1822, the Mexican legislative body in California ended isolationist policies designed to protect the Spanish monopoly on trade, and decreed California ports open to foreign merchants (Dallas 1955).

Extensive land grants were established in the interior during the Mexican Period, in part to increase the population inland from the more settled coastal areas where the Spanish had first concentrated their colonization efforts. The secularization of the missions following Mexico's independence from Spain resulted in the subdivision of former mission lands and establishment of many additional ranchos. Commonly, former soldiers and well-connected Mexican families were the recipients of these land grants, which now included the title to the land (Graffy 2010).

During the supremacy of the ranchos (1834–1848), landowners largely focused on the cattle industry and devoted large tracts to grazing. Cattle hides became a primary southern California export, providing a commodity to trade for goods from the east and other areas in the United States and Mexico. The number of nonnative inhabitants increased during this period because of the influx of explorers, trappers, and ranchers associated with the land grants. The rising California population contributed to the introduction and rise of diseases foreign to the Native American population, who had no associated immunities.

American Period (1848-Present)

The United States went to war with Mexico in 1846. During the first year of the war, John C. Fremont traveled from Monterey to Los Angeles with reinforcements for Commodore Stockton and evaded Californian soldiers in Santa Barbara's Gaviota Pass by taking the route over the San Marcos grade

instead (Kyle 2002). The war ended in 1848 with the Treaty of Guadalupe Hidalgo, ushering California into its American Period.

California officially became a state with the Compromise of 1850, which also designated Utah and New Mexico (with present-day Arizona) as US territories (Waugh 2003). Horticulture and livestock, based primarily on cattle as the currency and staple of the rancho system, continued to dominate the southern California economy through 1850s. The discovery of gold in the northern part of the state led to the Gold Rush beginning in 1848, and with the influx of people seeking gold, cattle were no longer desired mainly for their hides but also as a source of meat and other goods. During the 1850s cattle boom, rancho vaqueros drove large herds from southern to northern California to feed that region's burgeoning mining and commercial boom.

A severe drought in the 1860s decimated cattle herds and drastically affected rancheros' source of income. In addition, property boundaries that were loosely established during the Mexican era led to disputes with new incoming settlers, problems with squatters, and lawsuits. Rancheros often were encumbered by debt and the cost of legal fees to defend their property. As a result, much of the rancho lands were sold or otherwise acquired by Americans. Most of these ranchos were subdivided into agricultural parcels or towns (Dumke 1944).

City of Long Beach

Secularization enacted by the Mexican government in the 1830s shut down the mission system and freed up former mission lands for private land grants, including several in the Mission San Gabriel Arcangel area. In 1834, Governor Figueroa granted to Manuel Nieto de Cota and the Nieto family the 27,054-acre Rancho Los Cerritos that encompassed the City of Long Beach (Chambers Group 2020). Not much changed for the residents around the rancho grounds until 1882, when William Willmore acquired the Rancho Los Cerritos property from the Nieto family (Spitzzeri 2016 and City of Long Beach 2022).

The City of Long Beach was originally named "Willmore City" after William Willmore until 1887, when the Long Beach Land and Water Company acquired the property from Willmore and began referring to the area as "Long Beach." The City of Long Beach was incorporated in 1887 and remained relatively remote and sparsely populated until after 1902 when the "Road to Long Beach" from Los Angeles was completed (City of Long Beach 2022) . The years between 1902 and 1911 saw continuous growth and expansion throughout the city, especially when the Port of Long Beach became operational in 1911 (Spitzzeri 2016 and City of Long Beach 2022).

It was the discovery of oil in Long Beach and Signal Hill in 1921 that triggered a rapid expansion to include a million-dollar-per-month construction boom in downtown Long Beach. The 1921 expansion established the City of Long Beach as a popular seaside resort and port town that attracted large crowds of visitors from all over the region and the world. However, in 1933, the economic boom collapsed, when a 6.4-magnitude earthquake hit the downtown area, taking 120 lives and costing an estimated $50 million dollars in damage. The oil industry dominated the Long Beach area for years, as oil production is still evident in many parts of the city.

Diversification of the city's economy began just prior to World War II, with the construction of the U.S. Naval Shipyard and the Douglas Aircraft Company plant in 1941. A housing boom soon followed as there was an urgent need for housing to house the workers and serviceman working at these facilities (Herman 2012).

Long Beach's prosperity continued after the war in new suburban neighborhoods, shopping centers and commerce. In one east Long Beach neighborhood, civic leaders provided a site for a new state college. However, these new suburbs, along with the sinking of the harbor as oil was pumped out from under it, led to a decline of the central business district and the older neighborhoods. Since the 1970s, redevelopment has begun downtown; the college has become California State University, Long Beach (CSULB); and a continuously expanding commercial base and the people it attracts have become integrated into the social and economic institutions that continue to drive the growth of the Long Beach Metro Area (CSULB 2022).

4.3.2 Regulatory Setting

a. Federal Regulations

National Register of Historic Places

The National Register of Historic Places (NRHP) was established by the National Historic Preservation Act (NHPA) of 1966 as "an authoritative guide to be used by federal, State, and local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment" (CFR 36 CFR 60.2). The NRHP recognizes properties that are significant at the national, State, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association.

b. State Regulations

California Environmental Quality Act

California Public Resources Code (PRC) Section 21084.1 requires lead agencies to determine if a project could have a significant impact on historical or unique archaeological resources. As defined in PRC Section 21084.1, a historical resource is a resource listed in, or determined eligible for listing in, the California Register of Historical Resources (CRHR); a resource included in a local register of historical resources or identified in a historical resources survey pursuant to PRC Section 5024.1(g); or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant. PRC Section 21084.1 also states resources meeting the above criteria are presumed to be historically or culturally significant unless the preponderance of evidence demonstrates otherwise. Resources listed in the National Register of Historic Places (NRHP) are automatically listed in the CRHR and are, therefore, historical resources under CEQA. Historical resources may include eligible built environment resources and archaeological resources of the precontact or historic periods.

CEQA Guidelines Section 15064.5 provides further guidance on the consideration of archaeological resources. If an archaeological resource does not qualify as a historical resource, it may meet the definition of a "unique archaeological resource" as identified in PRC Section 21083.2. PRC Section 21083.2(g) defines a unique archaeological resource as an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria: 1) it contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; 2) has a special and particular quality such as being the oldest of its type or the best

available example of its type; or 3) is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological resource does not qualify as a historical or unique archaeological resource, the impacts of a project on those resources will be less than significant and need not be considered further (*CEQA Guidelines* Section 15064.5[c][4]). *CEQA Guidelines* Section 15064.5 also provides guidance for addressing the potential presence of human remains, including those discovered during the implementation of a project.

According to CEQA, an impact that results in a substantial adverse change in the significance of a historical resource is considered a significant impact on the environment. A substantial adverse change could result from physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired (*CEQA Guidelines* §15064.5 [b][1]). Material impairment is defined as demolition or alteration in an adverse manner [of] those characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR or a local register (*CEQA Guidelines* §15064.5[b][2][A]).

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC §21083.2[a], [b]).

The requirements for mitigation measures under CEQA are outlined in *CEQA Guidelines* Section 15126.4(a)(1). In addition to being fully enforceable, mitigation measures must be completed within a defined time period and be roughly proportional to the impacts of the project. Generally, a project which is found to comply with the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (the Standards) is considered to be mitigated below a level of significance (*CEQA Guidelines* Section 15126.4 [b][1]). For historical resources of an archaeological nature, lead agencies should also seek to avoid damaging effects where feasible. Preservation in place is the preferred manner to mitigate impacts to archaeological sites; however, data recovery through excavation may be the only option in certain instances (*CEQA Guidelines* Section 15126.4[b][3]).

California Register of Historical Resources

The CRHR was established in 1992 and codified by PRC §§5024.1 and Title 14 Section 4852. The CRHR is an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change (Public Resources Code, 5024.1(a)). The criteria for eligibility for the CRHR are consistent with the NRHP criteria but have been modified for state use in order to include a range of historical resources that better reflect the history of California (Public Resources Code, 5024.1(b)). Unlike the NRHP however, the CRHR does not have a defined age threshold for eligibility; rather, a resource may be eligible for the CRHR if it can be demonstrated sufficient time has passed to understand its historical or architectural significance (California Office of Historic Preservation 2006). Further, resources may still be eligible for listing in the CRHR even if they do not retain sufficient integrity for NRHP eligibility (California Office of Historic Preservation 2011). Generally, the California Office of Historic Preservation recommends resources over 45 years of age be recorded and evaluated for historical resources eligibility (California Office of Historic Preservation 1995:2).

Properties are eligible for listing in the CRHR if they meet one of more of the following criteria:

Criterion 1: Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage

Criterion 2: Is associated with the lives of persons important to our past

Criterion 3: Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values

Criterion 4: Has yielded, or may be likely to yield, information important in prehistory or history

California Health and Safety Code §7050.5

Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the Coroner of the county in which the remains are discovered has determined if the remains are subject to the Coroner's authority. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification.

California Public Resources Code §5097.98

Section 5097.98 of the California Public Resources Code states that the NAHC, upon notification of the discovery of Native American human remains pursuant to Health and Safety Code §7050.5, shall immediately notify those persons (i.e., the Most Likely Descendant or "MLD") it believes to be descended from the deceased. With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

4.3.3 Impact Analysis

a. Methodology and Significance Thresholds

Methodology

Impacts on cultural resources could result from ground-disturbing activities needed to construct the project. Ground-disturbing activities include project-related excavation, grading, trenching, vegetation clearance, the operation of heavy equipment, or other surface and sub-surface disturbance that could damage or destroy surficial or buried cultural resources including prehistoric or historic-period archaeological resources or human burials. Potential significant impacts associated with the project were identified based on a review of the *Intex Corporate Office and Fulfillment Center Project Cultural Resources Assessment Report* (Appendix H).

Appendix H includes a cultural resources records search, a sacred lands file search, AB 52 administrative assistance, a pedestrian survey, and the preparation of the Cultural Resources Assessment Report according to the Archaeological Resources Management Report (ARMR) guidelines set by the California Office of Historic Preservation and in compliance with the

requirements of the California Environmental Quality Act (CEQA). The pedestrian survey did not identify archaeological resources within the project site. Rincon's Archaeologist observed heavy disturbance throughout the project site. Although no archaeological resources were identified during the current study and despite the heavy disturbances observed throughout the project site, historic aerial imagery from 1953 through 2020 depicts the project site as undeveloped/vacant land that has remained the same, with no changes in topography, and which contains no new built environments. For more detail regarding the methodology and results of the *Intex Corporate Office and Fulfillment Center Project Cultural Resources Assessment Report,* please refer to Appendix H.

The impact analysis included herein is organized based on the cultural resources checklist questions included in *CEQA Guidelines Appendix G: Environmental Checklist Form*. Checklist question a broadly refers to historical resources. To more clearly differentiate between archaeological and built environment resources, analysis under checklist question *a* is limited to built environment resources. Archaeological resources, including those that may be considered historical resources pursuant to *CEQA Guidelines* Section 15064.5 and those that may be considered unique archaeological resources pursuant to PRC Section 21083.2, are considered under checklist question *b*.

Significance Thresholds

CEQA identifies the following criteria, as established in Appendix G of the *CEQA Guidelines*, to determine if a project could potentially have a significant adverse effect on cultural resources.

A project would have a significant adverse effect on cultural resources if it would do any of the following:

1. Cause a substantial adverse change in the significance of a historical resource, as defined in *CEQA Guidelines* Section 15064.5
2. Cause a substantial adverse change in the significance of a unique archaeological resources pursuant to *CEQA Guidelines* Section 15064.5
3. Disturb any human remains, including those interred outside of dedicated cemeteries

All of the above impact thresholds are addressed in the impacts section below. Impacts to tribal cultural resources have been addressed in Section 4.12, *Tribal Cultural Resources* of this EIR.

b. Project Impacts and Mitigation Measures

Threshold 1:	Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Impact CUL-1 THE PROPOSED PROJECT WOULD NOT CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A HISTORICAL RESOURCE PURSUANT TO §15064.5 BECAUSE NO HISTORICAL RESOURCES HAVE BEEN IDENTIFIED WITHIN THE PROJECT SITE. THERE WOULD BE NO IMPACT.

No built environment cultural resources that may be considered historical resources are present within the project site. Therefore, there would be no impact to historical resources pursuant to §15064.5.

Mitigation Measures

There would be no impact, so no mitigation is required.

Threshold 2:	Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Impact CUL-2 BECAUSE OF THE PROJECT SITE'S PROXIMITY TO PERMANENT WATER SOURCES THAT INCREASE THE LIKELIHOOD OF ENCOUNTERING SUBSURFACE ARCHAEOLOGICAL RESOURCES BENEATH THE PROJECT SITE, THE PROPOSED PROJECT COULD CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF AN ARCHAEOLOGICAL RESOURCE PURSUANT TO *CEQA GUIDELINES* SECTION 15064.5. IMPACTS WOULD BE MITIGATED TO A LESS THAN SIGNIFICANT LEVEL.

The cultural resources study conducted for the project did not identify evidence of archaeological resources within or adjacent to the project site. During the pedestrian survey, the archaeologist observed heavy disturbance throughout the project site from various types of modern disturbances including an existing berm and chain link fence, modern landscaping, the dumping of landscape vegetation, and the plowing/disking of the vacant lot. Historical aerial imagery indicates that this disturbance has been constant for at least the past 30 years.

The Los Angeles River is located approximately 0.25-mile east of the project site and Compton Creek is located approximately 0.50-mile northwest of the project site. These permanent water sources increase the likelihood of subsurface archaeological resources within the project site, as prehistoric communities would have utilized these water sources for their livelihood. Therefore, the project site is considered sensitive for buried archaeological resources and mitigation is required.

Mitigation Measures

CUL-1 Worker's Environmental Awareness Program

A qualified archaeologist shall be retained to conduct a Worker's Environmental Awareness Program (WEAP) training on archaeological sensitivity for all construction personnel prior to the commencement of any ground-disturbing activities. The training shall be conducted by an archaeologist who meets or exceeds the Secretary of Interior's Professional Qualification Standards for archeology (National Park Service [NPS] 1983). Archaeological sensitivity training shall include a description of the types of cultural material that may be encountered, cultural sensitivity issues, the regulatory environment, and the proper protocol for treatment of the materials in the event of a find.

CUL-2 Periodic Archaeological Spot Checks

A qualified archaeologist, who meets the U.S. Secretary of the Interior's Professional Qualifications and Standards, shall conduct archaeological spot checks beginning at depths of three (3) feet and below to determine if construction excavations have exposed or have a high probability of exposing archaeological resources. After the initial Archaeological Spot Check, further periodic checks shall be conducted at the discretion of the qualified archaeologist. If the qualified archaeologist determines that construction excavations have exposed or have a high probability of exposing archaeological artifacts, full-time archaeological monitoring will be required.

CUL-3 Unanticipated Discovery of Cultural Resources

In the event that archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 50 feet of the find shall halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the resource. If the discovered resources are tribal cultural resources, Mitigation Measures TCR-1 and TCR-2 in Section 4.12, *Tribal Cultural Resources,* of this EIR

shall be followed. If the qualified archaeologist and/or Native American representative determines it to be appropriate, archaeological testing for CRHR eligibility shall be completed. If the resource proves to be eligible for the CRHR and significant impacts to the resource cannot be avoided via project redesign, a qualified archaeologist shall prepare a data recovery plan tailored to the physical nature and characteristics of the resource, per the requirements of CCR Guidelines Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to cultural resources related to the resource. Pursuant to the data recovery plan, the qualified archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. The City shall review and approve the treatment plan and archaeological testing as appropriate, and the resulting documentation shall be submitted to the regional repository of the California Historical Resources Information System, per CCR Guidelines Section 15126.4(b)(3)(C).

Significance After Mitigation

Implementation of Mitigation Measures CUL-1 through CUL-3 would reduce potential impacts to archaeological resources to a less than significant level and would effectively mitigate the project's impacts to these resources through the recovery, identification, and treatment of archaeological resources.

Threshold 3:	Would the project disturb any human remains, including those interred outside of formal cemeteries?

Impact CUL-3 IN THE EVENT THAT THE PROPOSED PROJECT DISTURBS HUMAN REMAINS, INCLUDING THOSE INTERRED OUTSIDE OF FORMAL CEMETERIES, ADHERENCE TO EXISTING REGULATIONS REGARDING THE TREATMENT OF HUMAN REMAINS WOULD RESULT IN A LESS THAN SIGNIFICANT IMPACT.

The discovery of human remains is always a possibility during ground-disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site and make recommendations to the landowner within 48 hours of being granted access. With adherence to existing regulations regarding the treatment of human remains, impacts would be less than significant.

Mitigation Measures

Compliance with existing regulations would reduce the proposed project's potential to disturb human remains to a less than significant level by ensuring proper identification and treatment of any human remains that would be present. No mitigation would be required.

4.3.4 Cumulative Impacts

An analysis of cumulative impacts takes into consideration the entirety of impacts that the projects discussed in Table 3-1, *Cumulative Project List* in Section 3, *Environmental Setting* of this EIR, would have on cultural resources. The geographic area of analysis of cumulative impacts for cultural resources includes the surrounding areas within the local and regional portions of the City of Long

Beach. This geographic scope of analysis is appropriate because the archaeological and historical resources within this area are expected to be similar to those that occur on the project site because of their proximity, and because the similar environments, landforms, and hydrology would result in similar land use—and thus, site types. This is a large enough area to encompass any effects of the proposed project on cultural resources that may combine with similar effects caused by other past, current, and reasonably foreseeable future projects, and provides a reasonable context wherein cumulative actions could affect cultural resources. Multiple projects are proposed throughout the City of Long Beach and other areas within the Los Angeles area. Cumulative impacts to cultural resources could occur if other related projects in conjunction with the proposed project, had or would have impacts on cultural resources that, when considered together, would be significant.

As discussed above, development of the proposed project, in combination with other projects in the area, has the potential to contribute to a cumulatively significant impact to archaeological resources due to the unanticipated discovery of archaeological resources unique to the region. However, implementation of Mitigation Measure CUL-1 would ensure that all workers receive archaeological sensitivity training conducted by a qualified archaeologist that would instruct workers on the proper protocol in the event an archaeological resource is discovered. In addition, implementation of Mitigation Measure CUL-2 requires that periodic spot checks on the project site be performed by a qualified archaeologist so archaeological resources could be avoided to the greatest extent possible. Implementation of Mitigation Measure CUL-3 requires that in the unlikely event of an unanticipated cultural discovery, work will halt, and the resource will be evaluated and recovered, as necessary, to ensure protection of cultural resources. Implementation of MMs CUL-1 through CUL-3 would reduce the proposed project's incremental potential impacts to historical and archaeological resources to a less than significant level and ensure that the proposed project's impacts to cultural resources are not cumulatively considerable.

Lastly, although proposed project construction has the potential to disturb human remains, as does construction of other projects in the cumulative study area, adherence to appropriate state laws and protocols, including State of California Health and Safety Code Section 7050.5 and PRC Section 5097.98 would be implemented during construction of the proposed project and ensure that cumulative impacts arising from disturbance from the proposed project are not significant.

4.4 Energy

This section evaluates impacts to energy, including the potential wasteful, inefficient, or unnecessary consumption of energy, associated with development of the proposed project. This analysis follows the guidance for evaluation of energy impacts contained in Appendix F and Appendix G of the *California Environmental Quality Act* (*CEQA) Guidelines*. The physical environmental impacts from emissions associated with the generation of electricity and burning of fuels have been accounted for in Section 4.1, *Air Quality*, and Section 4.6, *Greenhouse Gas Emissions*. The California Emissions Estimator Model (CalEEMod) Version 2022.1 was used to estimate emissions resulting from the proposed project. Construction and operational energy consumption were modeled based on the size of the proposed land use type. The CalEEMod results are provided in (Appendix F).

4.4.1 Setting

Energy relates directly to environmental quality because energy use can adversely affect air quality and other natural resources. Fossil fuels are burned to create electricity to power homes and vehicles, which creates heat. Transportation energy use relates to the fuel efficiency of cars and trucks, and the availability and use of public transportation, the choice of different travel modes (auto, carpool, and public transit), and the miles traveled by these modes. Construction and routine operation and maintenance of infrastructure also consume energy, as do residential and commercial land uses, typically in the form of natural gas and electricity. However, natural gas would not be included as a project design feature and is therefore excluded from this analysis.

Energy Supply

Based on the California Energy Commission's (CEC's) California Energy Demand Forecast, 2021-2035, Southern California Edison's (SCE) total energy to serve load[1] for 2027 is 100,313 gigawatt hour (GWh) and the net peak demand[2] in 2027 will be 23,448 megawatt of electricity in the low-case demand scenario[3]. The proposed project's energy consumption is compared to SCE's energy demand capacity in Impact E-1 below.

Energy Consumption and Sources

In 2021, total energy consumption in the United States was approximately 97 quadrillion British Thermal Units (Btu). Petroleum provided approximately 36 percent of that energy, other sources of energy coming from natural gas (approximately 32 percent), coal (approximately 11 percent), total renewable sources (approximately 12 percent), and nuclear power (approximately eight percent) (EIA 2022). On a per capita basis in 2021, California was ranked the fourth lowest state in terms of total energy consumption (189 million Btu [MMBtu] per person), or about 36 percent less than the U.S. average per capita consumption of 295 MMBtu per person (EIA 2023a).

The smallest scale at which energy consumption information is readily available is the county level. Therefore, because the project site is in Los Angeles County, the County is used to characterize the

[1] The total energy to serve load is the total electricity demand for a given forecasted year within a utility service area. This forecast is a benchmark for the utility to have enough electricity to serve total demand.

[2] The net peak demand is the maximum amount of instantaneous energy demand for all buildings within a utility service area over the course of the forecasted year, minus losses from transmission and distribution, and utility generated solar. This forecast projects the peak amount of instantaneous energy a utility would need to have the capacity to serve this peak demand.

[3] The low-case demand scenario is CEC's low end energy projections for each forecasted year within the utility service area.

City of Long Beach existing consumption of petroleum and electricity as described in the following subsections.

Electricity

Most of the electricity generated in California is from natural gas-fired power plants, which provided approximately 50 percent of total electricity generated in 2021. In 2021, California produced 69 percent of the electricity it used and imported the rest from outside the state. In 2021, California used 277,764 GWh of electricity, with 194,127 GWh produced in-state (CEC 2023a). Los Angeles County consumed approximately 65,375 GWh of electricity in 2021 from residential and non-residential uses (CEC 2023b). Table 4.4-1 illustrates the County's 2021 electricity consumption in comparison to statewide consumption and displays the County's equivalent per capita energy consumption from its electricity demand. With a population of 9,931,338 in 2021 (Department of Finance [DOF] 2023), the County's 2021 per capita electricity consumption was approximately 6,583 kilowatt hour (kWh), or approximately 22 million Btu.

Table 4.4-1 2021 Annual Electricity Consumption

Jurisdiction	Electricity Use (GWh)	Proportion of Statewide Consumption	Consumption per Capita (kWh)	Consumption per Capita (MMBtu)
Los Angeles County	65,375	23.5%	6,583	22.46
California	277,764	N/A	7,067	24.11

GWh = gigawatt-hours; kWh = MMBtu = Million British Thermal Unit

Notes: For reference, the population of Los Angeles County (9,931,338 persons) is approximately 25.3 percent of the population of California (39,303,157 persons) (DOF 2023).

Source: CEC 2023b

Residential and commercial electricity accounts in the City of Long Beach are automatically enrolled in SCE. SCE provides electricity throughout Long Beach and Southern California. SCE maintains more than 105,773 miles of distribution lines across its entire service area, and its system contains approximately 1.4 million electricity poles (SCE 2023a). SCE's power mix in 2021 contained 31.4 percent renewable, 9.2 percent nuclear, and 22.3 percent natural gas (SCE 2023b). According to the California Energy Demand Forecast, SCE is expected to have an annual electricity demand of between 100,313 GWh (low demand case) and 114,531 GWh (high demand case), with peak demand between 23,448 GWh and 25,805 GWh in 2027 (CEC 2022a and 2022b).

In conjunction with the utility companies, the California Public Utilities Commission (CPUC) is involved in energy conservation programs. CPUC and CEC are constantly assessing population growth, electricity demand, and reliability. The CEC is tasked with conducting assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The CEC uses these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety (Public Resources Code Section 25301[a]).

Power plants that provide electricity for SCE are required to go through individual environmental review processes, which may be through the CEC's certified regulatory program under CEQA, or through the CPUC's CEQA processes. The CEC is continuously tracking potential projects 50 MW and larger (CEC 2023c). Similarly, the CPUC conducts and manages environmental review of infrastructure projects, including electric, gas, water, and telecommunications (CPUC 2023).

Petroleum

Petroleum fuels are generally purchased by individual users such as residents and employees. There are no petroleum refineries in Long Beach (CEC 2023d); approximately 46 gasoline stations are present in Long Beach. According to the Department of Conservation (DOC) Geologic Energy Management Division (CalGEM) (formerly the Division of Oil, Gas & Geothermal Resources or DOGGR), there are hundreds of active oil wells within the Wilmington and Long Beach oil field (CalGEM 2023). The nearest active oil well to the project site is approximately 1.2 miles southeast of the project site in Long Beach.

Energy consumed by the transportation sector accounts for roughly 34 percent of California's energy demand, amounting to approximately 2,785 trillion Btu in 2021 (EIA 2023b). Petroleum-based fuels are used for approximately 85 percent of the state's transportation activity (EIA 2023c). Most gasoline and diesel fuel sold in California for motor vehicles is refined in California to meet state-specific formulations required by the California Air Resources Board (CARB). California's transportation sector, including on-road and rail transportation, consumed approximately 511 million barrels of petroleum fuels in 2021 (EIA 2023c).

As shown in Table 4.4-2, Los Angeles County consumed an estimated 3,061 million gallons of gasoline and 224 million gallons of diesel fuel in 2021 (CEC 2022c). The County's annual per capita fuel consumption in 2021 consisted of 308 gallons of gasoline and 25 gallons of diesel fuel per person.

According to the CEC, one gallon of gasoline is equivalent to approximately 109,786 Btu, while one gallon of diesel is equivalent to approximately 127,460 Btu (Schremp 2017). Based on this formula, approximately 336 trillion Btu in transportation fuel were consumed per day in 2021 in Los Angeles County. As shown in Table 4.4-2, each person in Los Angeles County consumed approximately 37 million Btu in transportation fuel in 2021.

Table 4.4-2 2021 Annual Gasoline and Diesel Consumption

Fuel Type	Los Angeles County (million gallons)	California (million gallons)	Proportion of Statewide Consumption	County per Capita Consumption (gallons)	County per Capita Consumption (MMBtu)
Gasoline	3,061	13,818	22.2%	308	34
Diesel	244	1,883	13.0%	25	3

Notes: The population of Los Angeles County is 9,931,338 persons (DOF 2023)

Source: CEC 2022c

Alternative Fuels

A variety of alternative fuels are used to reduce petroleum-based fuel demand. The use of these fuels is encouraged through various statewide regulations and plans (e.g., Low Carbon Fuel Standard and Health and Safety Code Section 38566 [Senate Bill (SB) 32]). Conventional gasoline and diesel may be replaced, depending on the capability of the vehicle, with many alternative fuels including the following:

Hydrogen is being explored for use in combustion engines and fuel cell electric vehicles. The interest in hydrogen as an alternative transportation fuel stems from its clean-burning qualities, its potential for domestic production, and the fuel cell vehicle's potential for high efficiency (two to three times more efficient than gasoline vehicles). Currently, there are 58 hydrogen refueling stations in California. There is one hydrogen refueling station in Long Beach at 3401 Long Beach Boulevard, approximately 1.5 miles southeast of the project site. In addition, there is a hydrogen refueling station

at 2051 West 190th Street in Torrance approximately eight miles west of the project site; and a hydrogen refueling station at 11807 East Carson Street, Hawaiian Gardens, approximately 10 miles east of the project site. There are 16 hydrogen refueling stations in Los Angeles County (California Fuel Cell Partnership 2023). Recently the U.S. Department of Energy announced that it will award an "ARCHES" grant of up to $1.2 billion to a public-private partnership including the ports of Long Beach and Los Angeles to help fund deployment of hydrogen fuel cell cargo-handling equipment and mobile hydrogen fueling trucks or stations in the ports' terminals. Subsequent phases will add additional cargo-handling equipment and support the statewide deployment of 5,000 hydrogen fuel cell heavy-duty trucks (Port of Long Beach 2023).

Biodiesel is a renewable alternative fuel that can be manufactured from vegetable oils, animal fats, or recycled restaurant greases. Biodiesel is biodegradable and cleaner-burning than petroleum-based diesel fuel. Biodiesel can run in any diesel engine generally without alterations but fueling stations have been slow to make it available. There are 35 biodiesel refueling stations in California, three of which are in Los Angeles County. The nearest biodiesel refueling station is approximately 29 miles northeast of the project site at 150 S Diamond Bar Boulevard in Diamond Bar (U.S. Department of Energy 2023).

Electricity can be used to power electric and plug-in hybrid electric vehicles directly from the power grid. The electricity grid usually provides electricity used to power vehicles, which store it in the vehicle's batteries. Fuel cells are being explored to use electricity generated on board the vehicle to power electric motors. There are 351 electrical charging stations in Long Beach, the nearest of which is approximately 2.4 miles west of the project site at 4350 E 208th Street in Long Beach (Plugshare 2023).

Energy and Fuel Efficiency

Though the demand for gasoline and diesel fuel is rising because of population growth and limited mass transit, the increase in demand can be offset partially by efficiency improvements. Land use policies that encourage infill and growth near transit centers (e.g., following SB 375, the Sustainable Communities and Climate Protection Act of 2008), improvements to fuel efficiency, and gradual replacement of the vehicle fleet with new, more fuel-efficient, and alternatively fueled vehicles, as well as electric cars, will all reduce fuel use.

4.4.2 Regulatory Setting

a. Federal Regulations

Energy Policy and Conservation Act

Enacted in 1975, the Energy Policy and Conservation Act established fuel economy standards for new light-duty vehicles sold in the United States. The law placed responsibility on the National Highway Traffic and Safety Administration (NHTSA), a part of the United States Department of Transportation, for establishing and regularly updating vehicle standards. The United States Environmental Protection Agency (USEPA) administers the Corporate Average Fuel Economy (CAFE) program, which determines vehicle manufacturers' compliance with existing fuel economy standards.

National Energy Policy Act of 1992

The National Energy Policy Act of 1992 (EPACT92) calls for programs that promote efficiency and the use of alternative fuels. EPACT92 requires certain federal, state, and local governments and private

operators to stock vehicle fleets with a percentage of light duty alternative fuel vehicles each year. In addition, EPACT92 has financial incentives: federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of alternative fuel vehicles. EPACT92 also requires states to consider a variety of incentive programs to help promote alternative fuel vehicles.

Energy Policy Act of 2005

The Energy Policy Act of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act, enacted by Congress in 2007, is designed to improve vehicle fuel economy and help reduce the United States dependence on foreign oil. It expands the production of renewable fuels, reducing dependence on oil, and confronting climate change. Specifically, it does the following:

- Increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard, requiring fuel producers to use at least 36 billion gallons of biofuel in 2022
- Reduces United States demand for oil by setting a national fuel economy standard of 35 miles per gallon (mpg) by 2020 – an increase in fuel economy standards of 40 percent compared to 2007 levels

The Energy Independence and Security Act of 2007 also set energy efficiency standards for lighting (specifically light bulbs) and appliances. The proposed project would be required to install photosensors and energy-efficient lighting fixtures consistent with the requirements of 42 USC Section 17001 et seq.

Corporate Average Fuel Economy (CAFE) Standards

The CAFE standards are Federal rules established by the NHTSA that set fuel economy and greenhouse gas (GHG) emissions standards for all new passenger cars and light trucks sold in the United States. The CAFE standards generally become more stringent with time, reaching an estimated 38.3 miles per gallon for the combined industry-wide fleet for model year 2020 (77 Federal Register 62624 et seq. October 15, 2012 Table I-1). It is, however, legally infeasible for individual municipalities to adopt more stringent fuel efficiency standards. The Clean Air Act (42 United States Code Section 7543[a]) states that "no state or any political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines subject to this part." In August 2016, the USEPA and NHTSA announced the adoption of the phase two programs related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower carbon dioxide (CO_2) emissions by approximately 1.9 billion metric tons of CO_2 and reduce oil consumption by up to 3.9 billion barrels over the lifetime of the vehicles sold under the program (77 Federal Register 62665 et seq. October 15, 2012 Table I-22).

As of March 2020, NHSTA and USEPA finalized the rulemaking process to establish the Safer Affordable Fuel Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (SAFE Vehicles Rule). The SAFE Vehicles Rule would amend the existing CAFE standards such that the requirements for model years 2021 through 2026 are lowered to the 2020 standards of 43.7 mpg and 204 grams of CO_2 per mile for passenger cars and 31.3 mpg and 284 grams of CO_2 per mile for light duty trucks (83 Federal Register 42989 August 24, 2018 Table I-1 and Table I-2).

Construction Equipment Fuel Efficiency Standard

USEPA sets emission standards for construction equipment. The first federal standards (Tier 1) were adopted in 1994 for all off-road engines over 50 horsepower and were phased in by 2000. A new standard was adopted in 1998 that introduced Tier 1 for all equipment below 50 horsepower and established the Tier 2 and Tier 3 standards. The Tier 2 and Tier 3 standards were phased in by 2008 for all equipment. The current iteration of emissions standards for construction equipment are the Tier 4 efficiency requirements and are contained in 40 Code of Federal Regulations Parts 1039, 1065, and 1068. Emissions requirements for new off-road Tier 4 vehicles were completely phased in by the end of 2015.

b. State Regulations

Warren-Alquist Act

The 1975 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the CEC. The Act established a State policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures.

California Energy Plan

The CEC is responsible for preparing the California Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The 2008 California Energy Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies several strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs, as well as encouragement of urban designs that reduce vehicle miles travelled (VMT) and accommodate pedestrian and bicycle access.

Assembly Bill 2076: Reducing Dependence on Petroleum

Pursuant to Assembly Bill (AB) 2076 (Chapter 936, Statutes of 2000), the CEC and CARB prepared and adopted a joint-agency report, *Reducing California's Petroleum Dependence,* in 2003. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita VMT. One of the performance-based goals of AB 2076 is to reduce petroleum demand to 15 percent below 2003 demand. Furthermore, in response to the CEC's 2003 and 2005 *Integrated Energy Policy Reports*, the Governor directed the CEC to take the lead in developing a long-term plan to increase alternative fuel use.

Integrated Energy Policy Report

Senate Bill 1389 (Chapter 568, Statutes of 2002) required the CEC to conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The CEC uses these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety. The most recent assessment, the *2021 Integrated Energy Policy Report*, highlights the implementation of California's innovative policies and the role they have played in establishing a clean energy economy and provides more detail on several key energy policies, including decarbonizing buildings, increasing energy efficiency savings, and integrating more renewable energy into the electricity system (CEC 2022d).

California Renewable Portfolio Standard and Senate Bill 100

Established in 2002 under SB 1078, and accelerated by SB 107 (2006), SB X 1-2 (2011), and SB 100 (2018), California's Renewable Portfolio Standard (RPS) obligates investor-owned utilities, energy service providers, and community choice aggregators to procure 33 percent total retail sales of electricity from renewable energy sources by 2020, 60 percent by 2030, and 100 percent by 2045. SB 100 also states "that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045." The CPUC and the CEC are jointly responsible for implementing the program. Electricity users in Long Beach are automatically enrolled in SCE, which has options of "SCE Green Rate 50%" (50 Percent from renewable sources) and "SCE Green Rate 100% Option" (100 percent renewable) (SCE 2023b).

Senate Bill 350: Clean Energy and Pollution Reduction Act of 2015

The Clean Energy and Pollution Reduction Act of 2015 (SB 350) requires the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources to be increased to 50 percent by December 31, 2030. The Act also requires doubled energy efficiency savings in electricity and natural gas for retail customers through increased efficiency and conservation by December 31, 2030.

Assembly Bill 1493: Reduction of Greenhouse Gas Emissions

Assembly Bill 1493 (Chapter 200, Statutes of 2002), known as the Pavley bill, amended Health and Safety Code sections 42823 and 43018.5 requiring CARB to develop and adopt regulations that achieve maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles, light-duty trucks, and other vehicles used for noncommercial personal transportation in California.

Implementation of new regulations prescribed by AB 1493 required that the state apply for a waiver under the federal Clean Air Act. Although the USEPA initially denied the waiver in 2008, the USEPA approved a waiver in June 2009, and in September 2009, CARB approved amendments to its initially adopted regulations to apply the Pavley standards that reduce GHG emissions to new passenger vehicles in model years 2009 through 2016. According to CARB, implementation of the Pavley regulations is expected to reduce fuel consumption while also reducing GHG emissions.

Energy Action Plan

The first Energy Action Plan (EAP) emerged in 2003 from a crisis atmosphere in California's energy markets. The State's three major energy policy agencies (CPUC, CEC, and the Consumer Power and

Conservation Financing Authority [established under deregulation and now defunct]) came together to develop one high-level, coherent approach to meeting California's electricity and natural gas needs. It was the first time that energy policy agencies formally collaborated to define a common vision and set of strategies to address California's future energy needs. They emphasized the importance of the impacts of energy policy on California's environment.

In the October 2005 EAP II, the CEC and CPUC updated their energy policy vision by adding some important dimensions to the policy areas included in the original EAP, such as the emerging importance of climate change, transportation-related energy issues, and research and development activities. The CEC adopted an update to the EAP II in February 2008 that supplements earlier EAPs and examines the State's ongoing actions in the context of global climate change.

Assembly Bill 1007: State Alternative Fuels Plan

AB 1007 (Chapter 371, Statutes of 2005) required the CEC to prepare a State plan to increase the use of alternative fuels in California. The CEC prepared the State Alternative Fuels Plan (SAF Plan) in partnership with CARB and in consultation with other State, federal, and local agencies. The SAF Plan presents strategies and actions California must take to increase the use of alternative, nonpetroleum fuels in a manner that minimizes costs to California and maximizes the economic benefits of in-state production. The SAF Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuel use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

Bioenergy Action Plan, Executive Order S-06-06

Executive Order (EO) S-06-06, April 25, 2006, establishes targets for the use and production of biofuels and biopower, and directs State agencies to work together to advance biomass programs in California while providing environmental protection and mitigation. The EO establishes the following targets to increase the production and use of bioenergy, including ethanol and biodiesel fuels made from renewable resources: produce a minimum of 20 percent of its biofuels in California by 2010, 40 percent by 2020, and 75 percent by 2050. EO S-06-06 also calls for the State to meet a target for use of biomass electricity. The 2011 Bioenergy Action Plan identifies barriers to the State meeting these goals and recommends actions to address these barriers so that the State can meet its clean energy, waste reduction, and climate protection goals. The 2012 Bioenergy Action Plan updates the 2011 Plan and provides a more detailed action plan to achieve the following goals:

1. Increase environmentally and economically sustainable energy production from organic waste
2. Encourage development of diverse bioenergy technologies that increase local electricity generation, combined heat and power facilities, renewable natural gas, and renewable liquid fuels for transportation and fuel cell applications
3. Create jobs and stimulate economic development, especially in rural regions of the State
4. Reduce fire danger, improve air and water quality, and reduce waste

Title 24, California Code of Regulations

The California Code of Regulations (CCR) Title 24 is referred to as the California Building Standards Code. It consists of a compilation of several distinct standards and codes related to building construction including plumbing, electrical, interior acoustics, energy efficiency, and handicap accessibility for persons with physical and sensory disabilities. The current iteration is the 2022 Title

24 standards. The California Building Standards Code's energy-efficiency and green building standards are outlined below.

Part 6 (Building Energy Efficiency Standards)

CCR Title 24, Part 6 is the Building Energy Efficiency Standards or California Energy Code. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings to reduce California's energy demand. New construction and major renovations must demonstrate their compliance with the current Energy Code through submittal and approval of a Title 24 Compliance Report to the local building permit review authority and the CEC. The 2022 Title 24 standards are the applicable building energy efficiency standards for the project because they became effective on January 1, 2023.

California Green Building Standards Code (2022), CCR Title 24, Part 11

The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11, first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 California Building Standards Code). The 2022 CALGreen includes mandatory minimum environmental performance standards for all ground-up new construction of residential and non-residential structures. It also includes voluntary tiers with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum mandatory CALGreen standards and may adopt additional amendments for stricter requirements.

The mandatory standards applicable to the proposed project require the following:

- 20 percent reduction in indoor water use relative to specified baseline levels[4]
- Waste Reduction
  - Non-residential and multi-family dwellings with five or more units: Provide readily accessible areas identified for the depositing, storage and collection of nonhazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastic, organic waste, and metals; and/or
  - Non-residential: Reuse and/or recycling of 100 percent of trees, stumps, rocks, and associated vegetation soils resulting from primary land clearing
- Inspections of energy systems to ensure optimal working efficiency
- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards
- Electric Vehicle (EV) Charging for New Construction:[5]
  - Non-residential land uses shall comply with the following EV charging requirements based on the number of passenger vehicle parking spaces:
    - 0-9: no EV capable spaces or charging stations required

[4] Similar to the compliance reporting procedure for demonstrating Energy Code compliance in new buildings and major renovations, compliance with the CALGreen water-reduction requirements must be demonstrated through completion of water use reporting forms. Buildings must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified in CALGreen or a reduced per-plumbing-fixture water use rate.

[5] EV Capable = a vehicle space with electrical panel space and load capacity to support a branch circuit and necessary raceways to support EV charging; EV-ready = a vehicle space which is provided with a branch circuit and any necessary raceways to accommodate EV charging stations, including a receptacle for future installation of a charger (see 2022 California Green Building Standard Code, Title 24 Part 11 for full explanation of mandatory measures, including exceptions).

  - 10-25: 4 EV capable spaces but no charging stations required
  - 26-50: 8 EV capable spaces of which 2 must be equipped with charging stations
  - 51-75: 13 EV capable spaces of which 3 must be equipped with charging stations
  - 76-100: 17 EV capable spaces of which 4 must be equipped with charging stations
  - 101-150: 25 EV capable spaces of which 6 must be equipped with charging stations
  - 151-200: 35 EV capable spaces of which 9 must be equipped with charging stations
  - More than 200: 20 percent of the total available parking spaces of which 25 percent must be equipped with charging stations

- Non-residential land uses shall comply with the following EV charging requirements for medium- and heavy-duty vehicles: warehouses, grocery stores, and retail stores with planned off-street loading spaces shall install EV supply and distribution equipment, spare raceway(s) or busway(s) and adequate capacity for transformer(s), service panel(s), or subpanel(s) at the time of construction based on the number of off-street loading spaces as indicated in Table 5.106.5.4.1 of the California Green Building Standards

- Bicycle Parking:
  - Non-residential short-term bicycle parking for projects anticipated to generate visitor traffic: permanently anchored bicycle racks within 200 feet of visitor entrance for 5 percent of new visitor motorized vehicle parking spaces with a minimum of one 2-bike capacity rack; and/or
  - Non-residential buildings with tenant spaces of 10 or more employees/tenant-occupants: secure bicycle parking for 5 percent of the employee/tenant-occupant vehicle parking spaces with a minimum of one bicycle parking facility

- Shade Trees (Non-Residential):
  - Surface parking: minimum No. 10 container size or equal shall be installed to provide shade over 50 percent of the parking within 15 years (unless parking area covered by appropriate shade structures and/or solar)
  - Landscape areas: minimum No. 10 container size or equal shall be installed to provide shade of 20 percent of the landscape area within 15 years; and/or
  - Hardscape areas: minimum No. 10 container size or equal shall be installed to provide shade of 20 percent of the landscape area within 15 years (unless covered by applicable shade structures and/or solar or the marked area is for organized sports activities)

The voluntary standards require:

- Deconstruct existing buildings and reuse applicable salvaged materials
- Deconstruct existing buildings and reuse applicable salvaged materials
- Tier I
  - Stricter energy efficiency requirements
  - Stricter water conservation requirements for specific fixtures
  - minimum 65 percent reduction in construction waste with third-party verification, Minimum 10 percent recycled content for building materials
  - Minimum 20 percent permeable paving
  - Minimum 20 percent cement reduction

- Tier II
  - Stricter energy efficiency requirements
  - Stricter water conservation requirements for specific fixtures
  - Minimum 75 percent reduction in construction waste with third-party verification
  - Minimum 15 percent recycled content for building materials
  - Minimum 30 percent permeable paving
  - Minimum 25 percent cement reduction

Advanced Clean Trucks Regulation

On June 25, 2020, CARB approved the Advanced Clean Trucks Regulation, which requires truck manufacturers (any manufacturer that certifies vehicles over 8,500 pounds gross vehicle weight rating) with sales in California to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024. By 2045, all new trucks sold in California must be zero-emission.

c. Local Regulations

2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, the economy, community development, and the environment. On September 3, 2020, SCAG's Regional Council formally adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), titled *Connect SoCal*. *Connect SoCal* builds upon the progress made through implementation of the 2016-2040 RTP/SCS and includes ten goals focused on promoting economic prosperity, improving mobility, protecting the environment, and supporting healthy/complete communities. The SCS implementation strategies include focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, and supporting implementation of sustainability policies. The SCS establishes a land use vision of center focused placemaking, concentrating growth in and near Priority Growth Areas, transferring of development rights, urban greening, creating greenbelts and community separators, and implementing regional advance mitigation (SCAG 2020).

City of Long Beach General Plan

The City of Long Beach General Plan contains a set of goals, strategies, policies, and action programs that prioritize community values. The Air Quality Element (1996) and Land Use Element (2019) include the following strategies, policies, and actions related to energy conservation (for policies related to reducing GHG emissions see Section 4.6, *Greenhouse Gas Emissions*):

Air Quality Element

Policy 7.1: Energy Conservation

Action 7.1.4: Encourage the incorporation of energy conservation features in the design of all new constructions.

Action 7.1.5: Encourage the installation of conservation devices and low energy using/water consuming appliances in new and existing development.

Land Use Element

Strategy No.1: Support sustainable urban development patterns.

LU Policy 1-3: Require sustainable design strategies to be integrated into public and private development projects.

LU Policy 1-4: Require electric vehicle charging stations to be installed in new commercial, industrial, institutional and multiple-family residential development projects. Require that all parking for single-unit and two-unit residential development projects be capable of supporting future electric vehicle supply equipment.

LU Policy 1-6: Require that new building construction incorporate solar panels, vegetated surface, high albedo surface and/or similar roof structures to reduce net energy usage and reduce the heat island effect.

4.4.3 Impact Analysis

a. Methodology and Significance Thresholds

In accordance with Appendix G of the *CEQA Guidelines,* a significant energy impact would occur if new development carried out under the proposed project would do either of the following:

1. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation
2. Conflict with or obstruct a State or local plan for renewable energy or energy efficiency

Public Resources Code Section 21100(b)(3) states that an EIR shall include "mitigation measures proposed to minimize significant effects on the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy." The physical environmental impacts associated with the use of energy, including the generation of electricity and burning of fuels, are discussed in Section 4.1, *Air Quality*, and Section 4.6, *Greenhouse Gas Emissions*.

Energy consumption is analyzed in terms of construction and operational energy. Construction energy demand accounts for anticipated energy consumption during construction of the proposed project, such as fuel consumed by construction equipment and construction workers' vehicles traveling to and from the construction site. Operational energy demand accounts for anticipated energy consumption during operation of the proposed project, such as fuel consumed by mobile vehicles; natural gas consumed for on-site power generation and heating building spaces; and electricity consumed for building power needs including, but not limited to, lighting, water conveyance, and air conditioning.

The CalEEMod Version 2022.1 was used to estimate emissions resulting from the proposed project. Construction and operational energy consumption were modeled based on the size of the proposed land use type. The CalEEMod results (Appendix F) provide the values used in this analysis to determine the anticipated energy consumption during construction and operation of the proposed project.

b. Project Impacts and Mitigation Measures

Threshold 1:	Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Impact E-1 THE PROPOSED PROJECT WOULD CONSUME GASOLINE, DIESEL, AND ELECTRICITY, BUT WOULD INCORPORATE DESIGN FEATURES REQUIRED BY THE 2022 TITLE 24 STANDARDS. THEREFORE, THE PROJECT WOULD NOT RESULT IN THE WASTEFUL, INEFFICIENT, OR UNNECESSARY CONSUMPTION OF ENERGY RESOURCES. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Construction

During construction, the proposed project would consume fuels associated with the onsite use of equipment, off-site hauling of materials and supplies, and worker transportation. The California Code of Regulations requires drivers of diesel-fueled commercial motor vehicles with gross vehicle weight ratings greater than 10,000 pounds not to idle the vehicle's primary diesel engine longer than five minutes at any location.[6] Compliance with this regulation would prevent unnecessary consumption of energy from use of diesel fuel during construction. The site preparation, grading, and building development activities that would be associated with proposed project construction do not typically rely on natural gas as an energy source. Therefore, substantial quantities of natural gas would not be consumed in support of proposed project construction.

The proposed project's demand for transportation fuels (gasoline and diesel) is provided in Table 4.4-3. The fuel consumption that is necessary to power off-road equipment is based on the quantity and type of equipment that would be used for each construction phase, the duration of use each day, the total construction period duration, and the hourly construction equipment fuel consumption factors that are made available by the OFFROAD model. On-road equipment includes haul trucks and vendor trucks, which are powered by diesel fuel, as well as vehicles associated with construction worker commuter trips, which are assumed to be powered by gasoline. The fuel consumption for on-road trucks is based on fuel consumption information from the EMission FACtors (EMFAC) model. The fuel demand for construction worker commuter trips is based on the estimated number of workers for each phase of construction and the average distance that workers travel from CalEEMod, as well as on the emissions factors from the EMFAC model. As shown in Table 4.4-3, project construction activities would result in the consumption of approximately 135,092 gallons of diesel fuel and 86,544 gallons of gasoline.

Operations

During operations, the proposed project would consume energy for vehicle trips, water conveyance, solid waste disposal systems, lighting, and to operate electronic equipment and devices and HVAC systems. The proposed project's estimated energy use during operations is summarized in Table 4.4-4.

[6] California Code of Regulations, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.

Table 4.4-3 Project Construction Energy Use

Source	Energy Consumption
Natural Gas	N/A
Transportation Fuels	
Gasoline	**86,544 gal**
Diesel	
On-Road Haul Trucks	643 gal diesel
On-Road Vendor Trucks	57,929 gal diesel
Off-Road Construction Equipment	76,520 gal diesel
Diesel Total	**135,092 gal diesel**

Notes: kWh = kilowatt-hours gal = gallons
Source: Appendix F

Table 4.4-4 Project Operational Energy Use

Source	Energy Consumption
Electricity	6.3 GWh
Natural Gas	N/A
Transportation Fuels	
Gasoline	36,019 gallons
Diesel	42,010 gallons

Notes: GWh = gigawatt-hours; kBTU = kilo-British Thermal Units
Source: Appendix F

The proposed project would generate additional demand for electricity from SCE. As estimated by CalEEMod, the proposed project's total electricity demand would be approximately 6,299,637 kilowatt hours per year (kWh/year) or 6.3 gigawatt hours per year (GWh/year). SCE supplies more than 81,129 GWh/year of electricity to customers (CEC 2023a). The proposed project's total electricity demand would be 0.06 percent of SCE's projected low demand supply of 100,313 GWh in 2027. Therefore, the project would not result in a substantial increase in electricity demand compared to available supply. In addition, the proposed project would be required to comply with the applicable portions of the California Energy Code and California Green Building Standards Code (CALGreen Code), which establish planning and design standards for sustainable development, energy efficiency, water conservation, and material conservation. By required compliance with applicable regulations and continued energy efficient programs implemented by SCE, the proposed project's potential impacts regarding wasteful or inefficient use of electricity would be less than significant. The project would not consume natural gas; therefore, the project would not add to the existing natural gas demand and need for additional infrastructure. The proposed project would therefore have no potential to result in the wasteful or inefficient use of natural gas.

As shown in the Operational Fuel Use worksheet provided in Appendix F, the proposed project would generate approximately 1,215,554 VMT annually, 74 percent of which would comprise light-duty vehicles with a gross vehicle weight rating (GVWR) of up to 8,500 pounds, and approximately 26 percent of which would comprise heavy-duty vehicles (GVWR > 8,500 pound). For this analysis, light-duty vehicles are considered gasoline-powered and heavy-duty vehicles are considered diesel-fueled. As such, after complete project build-out, operation of the proposed project would generate

approximately 900,482 annual VMT with gasoline-fueled vehicles, and approximately 315,072 annual VMT with diesel-fueled vehicles. Based on the State's projected fleet fuel mileage for the year 2021, after complete project build-out, annual operation of the proposed project would require transportation fuels of approximately 36,019 gallons of gasoline, and approximately 42,010 gallons of diesel fuel. The proposed project's potential to result in impacts regarding wasteful or inefficient use of transportation fuels would be less than significant.

The proposed project is required to comply with all standards set in the latest iteration of the California Building Standards Code (California Code of Regulations Title 24), which would minimize the wasteful, inefficient, or unnecessary consumption of energy resources by the built environment during operation. California's CALGreen standards (California Code of Regulations Title 24, Part 11) require implementation of energy-efficient light fixtures and building materials into the design of new construction projects. Furthermore, the 2022 Building Energy Efficiency Standards (California Code of Regulations Title 24, Part 6) require newly constructed buildings to meet energy performance standards set by the CEC. These standards are specifically crafted for new buildings to result in energy efficient performance so that the buildings do not result in wasteful, inefficient, or unnecessary consumption of energy. In addition, per CALGreen, all plumbing fixtures used for the proposed project would be high-efficiency fixtures, which would minimize the potential for the inefficient or wasteful consumption of energy related to water and wastewater.

In summary, the proposed project would result in the consumption of energy in the forms of electricity and transportation fuels. The proposed project would be required to comply with federal, State, and local regulations aimed to reduce the inefficient, wasteful, and unnecessary consumption of energy. The proposed project's electricity would be negligible compared to the energy demand for SCE service areas. The project would be required to include 29 onsite electric vehicle charging stations (as described in Section 4.6, *Greenhouse Gas Emissions* and Section 2.7.1, *Conditions of Approval*) to be consistent with the 2022 California Green Building Standards. It would also be required to include a photovoltaic system to be consistent with the 2022 Title 24 Building Energy Efficiency Standards for warehouse land use. In addition, as discussed in Section 4.6, *Greenhouse Gas Emissions*, the proposed project would include energy measures that would, either individually or in combination, offset 100 percent of the proposed project's energy consumption with onsite solar generation or offsite SCE green power mix; and promote active transportation to reduce transportation fuel consumption. Therefore, the proposed project's energy requirements and its energy use efficiencies would result in a less than significant impact related to the wasteful, inefficient, and unnecessary consumption of energy.

Mitigation Measures

Compliance with existing regulations would reduce the proposed project's potential impact to a less than significant level by ensuring energy efficiencies are incorporated into project design and operation. No mitigation would be required.

Threshold 2:	Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Impact E-2 THE PROPOSED PROJECT WOULD CONSUME ENERGY BUT WOULD NOT CONFLICT WITH THE CITY OF LONG BEACH CLIMATE ACTION PLAN CHECKLIST, CITY OF LONG BEACH GENERAL PLAN, AND SCAG 2020-2045 RTP/SCS. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The Long Beach Climate Action Plan (LB-CAP) and General Plan contain measures intended to increase energy efficiency and expand the use of renewable energy in Long Beach. As described under Impact E-1, the proposed project would comply with CALGreen, and the state's Building Energy Efficiency Standards. As described in Section 2.7.1, *Conditions of Approval*, the proposed project would be consistent with the City's Long Beach General Plan LU Policy 1-4 and LU Policy 1-5 by incorporating photovoltaic (PV) solar system consistent with the 2022 Energy Code and installing 29 electric charging parking spaces. These measures would be consistent with the Building Energy section of the LB-CAP checklist. See Section 4.6, *Greenhouse Gas Emissions,* for further details regarding solar and renewable energy consumption.

With regard to transportation related energy usage, the proposed project would not conflict with the goals of SCAG's 2020–2045 RTP/SCS, which incorporates VMT targets established by SB 375. SCAG's 2020–2045 RTP/SCS focuses on creating livable communities with an emphasis on sustainability and integrated planning, and identifies mobility, economy, and sustainability as the three principles most critical to the future of the region. As part of that approach, the 2020–2045 RTP/SCS focuses on reducing fossil fuel use by decreasing VMT, reducing building energy use, and increasing use of renewable sources. The proposed project would be consistent with the energy efficiency policies emphasized in the 2020–2045 RTP/SCS by being in an area well-served by existing and planned public transit, implementing pedestrian improvements, and installing EV charging stations. In addition, the proposed project is within half a mile of existing residential and commercial land uses and transit, which could reduce reliance of motor vehicle use. This impact would be less than significant.

Mitigation Measures

Compliance with existing regulations would reduce the proposed project's potential impact to a less than significant level by ensuring energy efficiencies are incorporated into project design and operation, consistent with state and local plans and regulations. No mitigation would be required.

4.4.4 Cumulative Impacts

A project's environmental impacts are "cumulatively considerable" if the "incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects" (CEQA Guidelines Section 15065[a][3]). The geographic scope for analysis of the cumulative impacts of energy consumption is Los Angeles County. This geographic scope is appropriate because the smallest scale at which energy consumption information is readily available is the county level. Cumulative development would increase demand for energy resources. However, new iterations of the California Building Energy Efficiency Standards and CALGreen would require increasingly more efficient appliances and building materials that reduce energy consumption in new development. As described under Impact E-1, the proposed project would be built in accordance with the California Building Energy Efficiency Standards and CALGreen. The proposed project's electricity consumption would be 0.06 percent of all projected low-demand supply in SCE's service area by 2027. In addition, the proposed project would result in a net increase of approximately 36,019 gallons of gasoline and

42,010 gallons of diesel use for transportation fuels per year. The proposed project's transportation fuel usage would represent a small percentage of total fuel consumption within Los Angeles County. Additionally, the proposed project would include features that reduce VMT and associated transportation fuel use, including its location on an infill site with access to high quality public transit options and improvements to the pedestrian environment. While it is speculative to assess transportation fuel usage from cumulative projects (which are described in Table 3-1 of Chapter 3, *Environmental Setting*), it is expected that cumulative transportation fuel usage resulting from the proposed project and cumulative projects, including projects throughout the county, would be consistent with projections regarding future transportation fuel usage and supply. Cumulative development would therefore not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources.

Additionally, cumulative development would also receive electricity that is procured in compliance with SB 1020, which would promote the use of renewable energy. As a result, cumulative development would not result in a conflict with or obstruction of a state or local plan for renewable energy or energy efficiency, and impacts would not be cumulatively considerable.

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4.5 Geology and Soils

This section evaluates the proposed project's potential impacts relating to geology and soils, including geologic hazards and paleontological resources; an evaluation of the existing geologic resources on the project site and its vicinity; the criteria used to evaluate significance of potential impacts on geology and soils; the methods used in evaluating these potential impacts; an analysis of potential impacts; and project-specific mitigation. The analysis presented in this section is based on the Sobay 1988 Preliminary Geotechnical Investigation (Geotechnical Investigation) prepared by LeRoy Crandall and Associates, and the 1988 Preliminary Lab Soil Analysis prepared by Hewson Company (Appendix I).

4.5.1 Setting

This section discusses existing conditions in the proposed project area related to geology and soils and describes the environmental setting for geologic conditions in the region and at the project site. Soil conditions and potentially hazardous conditions related to geology and soils are also discussed below.

a. Regional Geology

The City of Long Beach is located on the coastal margin of the Los Angeles Basin, which is underlain by over 15,000 feet of stratified sedimentary rocks of marine origin. The coastal terrace on which the City of Long Beach lies is flanked by two flood plains on the east and west. Faults associated with the Newport-Inglewood Fault Zone cut diagonally across these features. In general, Long Beach is of low relief with a lack of significant slopes. The greatest relief is in the Signal Hill, Reservoir Hill, and Bixby Knolls areas, reflecting ancient activity along the Newport-Inglewood Fault Zone. Other areas of moderate relief include sea bluffs along the coast and lesser bluffs along the flood plains (City of Long Beach, General Plan Seismic Safety Element, 1988). With the exception of isolated hilly areas, the ground surface elevation is generally less than 60 feet. The ground water level is typically less than 60 feet below the ground surface and less than 20 feet below the ground surface in many areas.

The low areas now occupied by the Los Angeles and San Gabriel rivers represent channels that were cut deeply into the marine sediments by ancestral rivers during the lower sea level stand of the last Ice Age in late Pleistocene time. Over the last 17,000 years, the rivers have filled these channels to their present levels with relatively unconsolidated sand, silt, and gravel.

The folding and faulting that has uplifted and deformed the sediments within the City of Long Beach has been mainly concentrated along a nearly continuous row of hills referred to as the Newport-Inglewood Fault Zone, discussed further below (City of Long Beach, General Plan Seismic Safety Element, 1988).

b. Local Geologic Setting

Soils within the project area are classified as Profile D by the City's General Plan. Profile D covers the centrally located terrace that is underlain by over 15,000 feet of stratified sedimentary rock of marine origin (City of Long Beach, General Plan Seismic Safety Element, 1988). The project site is relatively flat and the natural soils beneath the project site consist primarily of silt, silty sand, and sand with occasional layers of clay. These soils can be poorly drained to well-drained, and are present on alluvial fans, flood plains, and stream terraces (Appendix I).

Seismic Hazards and Soil Stability

Southern California is a region of high seismic activity. Like most areas in the region, Long Beach is subject to risks associated with potentially destructive earthquakes. Earthquakes are most common along geologic faults that are planes of weakness or fractures along which rocks have been displaced. There are no known faults traversing the project site or immediately adjacent to the project site. The project site is not in an Alquist-Priolo Earthquake Fault Zone, and no evidence of faulting was identified in the Geotechnical Investigation prepared for the proposed project (Appendix I). The nearest active fault to the project site is the Rose Canyon Fault of the Newport-Inglewood Fault Zone, located approximately 0.3 mile east of the project site. An Alquist-Priolo Special Studies Zone has been established along this fault. Figure 4.5-1 shows the location of the nearest faults. Other nearby branches of the Newport-Inglewood Fault Zone include the Avalon-Compton and Reservoir Hill Faults, located 3.1 miles northwest and 4.1 miles southeast of the project site. The next nearest potentially active fault nearest the project site is the Richfield Fault, located approximately 1.7 miles southwest of the project site, at its nearest point. According to the Geotechnical Investigation, the potential for movement on the Richfield Fault during the life of the structure is considered low. Other more distant faults of the Newport-Inglewood Fault Zone include the Potrero and Inglewood Faults, located 10.2 and 10.4 miles northwest of the project site.

Surface Rupture

Surface rupture represents the breakage of ground along the surface trace of a fault, which is caused by the intersection of the fault surface area ruptured in an earthquake with the earth's surface. Fault displacement occurs when material on one side of a fault moves relative to the material on the other side of the fault. This can have particularly adverse consequences when buildings are located within the rupture zone. It is not feasible from a structural or economic perspective to design and build structures that can accommodate rapid displacement involved with surface rupture. Surface displacement can range from a few inches to tens of feet during a rupture event.

Faults are geologic hazards because of both surface fault displacement and seismic ground shaking that are distinct but related effects. Surface fault rupture can be very destructive to structures constructed across active faults. However, the zone of damage is limited to a relatively narrow area along either side of the fault as opposed to seismic ground shaking damage that can be more widespread. Faults are categorized as active, potentially active, and inactive. A fault is classified as active if it has moved during Holocene time, which consists of approximately the last 11,000 years. A fault is classified as potentially active if it has experienced movement within Quaternary time, which is during the last 1.8 million years. Faults that have not moved in the last 1.8 million years are generally considered inactive.

Ground Shaking and Seismic Settlement

The major cause of structural damage from earthquakes is ground shaking. The intensity of ground motion expected at a particular site depends upon the magnitude of the earthquake, the distance to the epicenter, and the geology of the area between the epicenter and the property. Greater movement can be expected at sites located on poorly consolidated material, such as alluvium, within close proximity to the ruptured fault, or in response to a seismic event of great magnitude. Seismic settlement often occurs when loose granular materials densify during ground shaking. The geologic materials beneath the project site generally consist of dense sand, silty sand, and sandy silt. Accordingly, the potential for seismic settlement is remote.

Figure 4.5-1 Faults Near Project Area

Imagery provided by Microsoft Bing and its licensors © 2023.
Additional data provided by CGS, 2022.

Liquefaction

Liquefaction is a seismic phenomenon in which loose, saturated granular and non-plastic fine-grained soils lose their structure/strength when subjected to high-intensity ground shaking. Liquefaction commonly occurs during earthquake shaking in areas underlain by shallow ground water (generally within 50 feet of the surface) and loose fine sands. According to the Long Beach Seismic Safety Element (1975), the project site is within an area of moderate to significant liquefaction potential. According to the site-specific Geotechnical Investigation, ground water was encountered in the four borings on the project site at a depth of approximately 43 feet and standard penetration tests indicated that the underlying deposits are generally dense, and the potential for liquefaction occurring on the project site is considered low.

Landslides and Slope Stability

Seismic ground shaking can also result in landslides and other slope instability issues. Landslides occur when slopes become unstable and masses of earth material move downslope. Landslides are usually rapid events, often triggered during periods of rainfall or by earthquakes. Mudslides and slumps are shallower types of slope failure. They typically affect the upper surficial soils horizons rather than bedrock features. Usually, mudslides and slumps occur during or soon after periods of rainfall, but they can be triggered by seismic shaking. The areas most susceptible to landslides are shown on maps prepared by the California Division of Mines and Geology. In addition, landslides occur where faults have fractured rock and along the base of slopes or cliffs where supporting material has been removed by stream or wave erosion, or human activities. Heavy rainfall, human actions, or earthquakes can trigger landslides. They may take the form of a slow continuous movement such as a slump or may move very rapidly as a semi-liquid mass such as a debris flow or avalanche. The property is located on relatively flat-lying ground with no slope stability problems and no potential for lurching (movement at right angles to a steep slope during strong ground shaking). Additionally, the property is not known to be on or in the path of any existing or potential landslide (SOBAY 1988).

Soil Hazards

Subsidence

Subsidence or settlement can occur from immediate settlement, consolidation, shrinkage of expansive soil, and liquefaction. Immediate settlement occurs when a load from a structure or placement of new fill material is applied, causing distortion in the underlying materials. This settlement occurs quickly and is typically complete after placement of the final load. Consolidation settlement occurs in saturated clay from the volume change caused by squeezing out water from the pore spaces. Consolidation occurs over a period of time and is followed by secondary compression, which is a continued change in void ratio under the continued application of the load. Soils tend to settle at different rates and by varying amounts depending on the load weight or changes in properties over an area, which is referred to as differential settlement. Areas underlain by soft sediments or undocumented fills are most prone to settlement. The Wilmington Oil Field Subsidence Area, located south of the project site, is a major zone of subsidence due to petroleum extraction, however, subsidence is not known to have occurred at the project site. Re-pressurization of the Wilmington Oil Field, which started in 1959, has substantially arrested the subsidence (SOBAY 1988).

Soil Erosion

Erosion refers to the removal of soil by water or wind. Factors that influence erosion potential include the amount of rainfall and wind, the length and steepness of the slope, and the amount and type of vegetative cover. Depending on how well protected the soil is from these forces, the erosion process can be very slow or rapid. Properties of the soil also contribute to how likely or unlikely it is to erode. Removal of natural or man-made protection can result in substantial soil erosion and excessive sedimentation and pollution problems in streams, lakes, and estuaries. Construction activities represent the greatest potential cause of erosion. Areas susceptible to erosion include areas exposed during construction and along the shoreline areas where soil is subjected to wave action.

Geologic Setting

The project geologic region was mapped by Brabb et al. (2000) who identified three geologic units underlying the project area: Holocene basin deposits, Holocene alluvial fan and fluvial deposits, and Pleistocene alluvial fan and fluvial deposits.

Holocene Basin Deposits

Holocene basin deposits underlie the northern part of the project area. Holocene basin deposits consist of silt, silty clay, or clay, that was deposited in flat basins along the edges of alluvial fans. Holocene basin deposits are likely too young (i.e., less than 5,000 years old) to preserve paleontological resources (SVP 2010). Therefore, Holocene basin deposits have low paleontological sensitivity.

Holocene Alluvial Fan and Fluvial Deposits

Holocene alluvial fan and fluvial deposits underlie much of the southern part of the project area. Holocene alluvial fan and fluvial deposits consist of brown or tan sediment ranging from silty clay to sandy gravel (Brabb et al. 2000). Holocene alluvial fan and fluvial deposits are likely too young (i.e., less than 5,000 years old) to preserve paleontological resources (SVP 2010). Therefore, Holocene alluvial fan and fluvial deposits have low paleontological sensitivity.

Pleistocene Alluvial Fan and Fluvial Deposits

Pleistocene alluvial fan and fluvial deposits underlie the southernmost part of the project area. Pleistocene alluvial fan and fluvial deposits consist of brown sediment ranging from clayey gravel to sandy clay (Brabb et al. 2000). Pleistocene-aged alluvial sediments have produced many significant paleontological resources in Los Angeles County, including taxa such as mammoth (*Mammuthus*), ground sloth (*Paramylodon*), sabre-toothed cat (*Smilodon*), bison (*Bison*), birds, invertebrates, and plants (Jefferson 2010; Paleobiology Database 2022; University of California Museum of Paleontology 2022). Given this fossil-producing history, Pleistocene alluvial fan and fluvial deposits have high paleontological sensitivity.

4.5.2 Regulatory Setting

a. Federal

Clean Water Act

Congress enacted the Clean Water Act (CWA), formerly the Federal Water Pollution Control Act of 1972, with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). NPDES permitting authority is administered by the California State Water Resources Control Board (SWRCB) and its nine RWQCBs. Long Beach is located within the Los Angeles RWQCB jurisdiction.

b. State

California Building Code

The California Building Code (CBC) is contained in the California Code of Regulations, Title 24, Part 2, which is a portion of the California Building Standards Code. Title 24 is assigned to the California Building Standards Commission, which by law is responsible for coordinating all building standards. The CBC incorporates by reference the federal Uniform Building Code with necessary California amendments. The CBC is a regulatory tool that includes building code standards to address geologic and seismic hazards. Chapter 16 of the CBC contains definitions of seismic sources and the procedure used to calculate seismic forces on structures.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (the Act) of 1990 was passed into law following the destructive October 17, 1989, magnitude 6.9 Loma Prieta earthquake. The Act directs the California Geological Survey (CGS) to delineate Seismic Hazard Zones. The purpose of the Act is to reduce the threat to public health and safety and to minimize the loss of life and property by identifying and mitigating seismic hazards, such as liquefaction, landslides, amplified ground shaking, and inundation by tsunami or seiche. Cities, counties, and State agencies are directed to use seismic hazard zone maps developed by CGS in their land-use planning and permitting processes. The Act requires that site-specific geotechnical investigations be performed prior to permitting most urban development projects within seismic hazard zones. CGS maintains these required maps.

c. Local Regulations

City of Long Beach General Plan

Seismic Safety Element

The City of Long Beach General Plan Seismic Safety Element contains discussions and recommendations to mitigate and lessen losses due to natural hazards such as earthquakes, hurricanes, tornadoes, floods, and expansive soils. The purpose of the Seismic Safety Element is to provide analysis of seismic factors to reduce the loss of life, injuries, damage to property, and social

and economic impacts resulting from future earthquakes. The Seismic Safety Element includes several goals for seismic safety that align with the General Plan:

DEVELOPMENT GOALS

Goal 1 Utilize seismic safety considerations as a means of encouraging and enhancing desired land use patterns.

Goal 2 Provide an urban environment which is as safe as possible from seismic risk.

Goal 3 Use physical planning as a means of achieving greater degrees of protection from seismic safety hazards.

Goal 4 Encourage development that would be most in harmony with nature and thus less vulnerable to earthquake damage.

Goal 5 Strive to encourage urbanization patterns which preserve and/or create greater earthquake safety for residents and visitors.

Public Safety Element

The City of Long Beach Public Safety Element includes the following goal related to general hazards:

Goal 11 Critically evaluate proposed public or private actions, which may pose safety hazards to residents or visitors.

4.5.3 Impact Analysis

a. Methodology and Significance Thresholds

The following thresholds are based on *CEQA Guidelines* Appendix G. For purposes of this EIR, impacts related to geology and soils are considered significant if implementation of the proposed project would do any of the following:

1. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
   a. 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
   b. Strong seismic ground shaking
   c. Seismic-related ground failure, including liquefaction, or
   d. Landslides
2. Result in substantial soil erosion or the loss of topsoil
3. 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
4. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirectly risks to life or property
5. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater

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

The Intex Corporate Office and Fulfillment Center Initial Study—Notice of Preparation (IS-NOP), which was completed in April 2023, evaluates the potential Geology and Soils impacts of the proposed project and is included as Appendix A of this EIR. The IS-NOP found impacts 1a, 1b, 1d, 2, 5, and 6 listed above (listed as impacts a1, a2, a4, b, e, and f in the IS-NOP) would be less than significant or have no impact, therefore these impacts will not be discussed further in this EIR. The impact analysis below therefore analyzes impacts 1c, 3, and 4.

To determine the uniqueness of a given paleontological resource, it must first be identified or recovered (i.e., salvaged). CEQA does not define "a unique paleontological resource or site." However, the Society of Vertebrate Paleontology (SVP) has defined a "significant paleontological resource" in the context of environmental review as follows:

> *Fossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are typically older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years). (SVP 2010).*

Threshold 1c	Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?
Threshold 3:	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?

Impact GEO-1 BECAUSE THE PROJECT SITE IS UNDERLAIN BY POTENTIALLY LIQUEFIABLE SOILS, THE PROPOSED PROJECT COULD EXPOSE PEOPLE OR STRUCTURES TO SUBSTANTIAL ADVERSE EFFECTS FROM SEISMIC-RELATED LIQUEFACTION. COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS WOULD HELP REDUCE POTENTIAL IMPACTS, BUT MITIGATION MEASURES GEO-1 THROUGH GEO-4 ARE REQUIRED TO ENSURE THAT THIS IMPACT WOULD BE REDUCED TO A LESS THAN SIGNIFICANT LEVEL.

Liquefaction is a condition where the soil undergoes a deformation due to the build-up of high porewater pressures. The possibility of liquefaction occurring depends on the occurrence of a significant earthquake in the vicinity, sufficient groundwater to cause high pore pressures, and on the grain size and density and pressures of the soil. The project site is located within an area designated by the City in the Seismic Safety Element of the General Plan as "Liquefaction Potential Minimal".

Liquefaction commonly occurs during earthquake shaking in areas underlain by shallow ground water generally within 50 feet of the surface and loose fine sands. The Geotechnical Investigation (Appendix I) found that groundwater was present on the project site approximately 43 feet below the surface. However, standard penetration tests performed on soil borings collected from the project site during the Geotechnical Investigation indicate that the underlying deposits are generally dense. Given the soil conditions and depth to groundwater found at the project site, the Geotechnical Investigation concluded the potential for liquefaction occurring on the project site is low.

Seismic settlement often occurs when loose granular materials densify during ground shaking. The Geotechnical Investigation found that the geologic materials beneath the project site generally

consist of dense sand, silty sand, and sandy silt. Accordingly, the potential for seismic settlement is remote (Appendix I).

Because the project site is within a mapped liquefaction zone pursuant to the CGS, the project must adhere to measures consistent with established practice that will reduce seismic risk to acceptable levels pursuant to Public Resources Code Section 2693. As discussed above, the site-specific Geotechnical Investigation for the project site indicates risk from liquefaction and seismic settlement is low to remote. Furthermore, the project would comply with all requirements of the CBC, including but not limited to those pertaining to foundation design, structural design, grading, excavation, and backfill compaction standards. Although liquefaction risk on the project site is low, and the project would comply with all applicable requirements of the CBC and the Geotechnical Investigation, compliance with the following mitigation measures is required to ensure that potential impacts related to liquefaction would be reduced to a less than significant level.

Mitigation Measures

GEO-1 Foundation Considerations

If subterranean construction is planned, footings should automatically extend into the firm natural soils. For preliminary design, it may be assumed that footings carried into the firm natural soils may be designed to impose a net dead plus live load pressure of 4,000 pounds per square foot.

Either driven friction piling or drilled cast-in-place concrete piling may be used; the lengths of drilled piling would be restricted to about 40 feet below the existing grade due to water. For preliminary design, it may be assumed that a 12-inch-square prestressed concrete driven pile, 40 feet long, will develop a downward capacity of about 180 kips. A 24-inch-diameter drilled cast-in-place concrete pile, 30 feet long, will develop a downward capacity of about 120 kips, and a 40 feet long pile will develop a downward capacity of about 180 kips. Shorter piles will have to be used if a basement is planned in order to keep the tips of the drilled piles within 40 feet of the present ground surface and above the ground water level.

GEO-2 Excavation

Conventional earth-moving equipment may be used. If the necessary space is available, temporary unsurcharged excavations may be sloped back at 3/4:1 (horizontal to vertical) in lieu of using shoring.

GEO-3 Grading

To provide support for floor slabs and walks on grade, the existing fill materials and disturbed natural soils should be excavated and replaced with properly compacted fill. The on-site soils, less debris and organic matter within fill deposits, would be suitable for use in compacted fills.

GEO-4 Floor Slab Support

The building floor slabs may be supported on grade. No special requirements are anticipated. Where a capillary break is considered necessary, the floor slabs may be supported on a layer of gravel or on an impermeable membrane.

Significance After Mitigation

Implementation of Mitigation Measures GEO-1 through GEO-4 would reduce the proposed project's potential impacts related to liquefaction to a less than significant level.

Threshold 3:	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?

Impact GEO-2 THE PROPOSED PROJECT COULD BE LOCATED ON A GEOLOGIC UNIT OR SOIL THAT IS UNSTABLE OR BECOME UNSTABLE RESULTING IN LATERAL SPREADING, SUBSIDENCE, OR COLLAPSE. COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS WOULD ENSURE THAT IMPACTS WOULD BE LESS THAN SIGNIFICANT.

According to Plate 9, "Slope Stability Study Areas" of the Long Beach General Plan Seismic Safety Element, the project site is not located in an area of slope instability (City of Long Beach 1988) and has no potential for lurching.

Subsidence is the sudden sinking or gradual downward settling of the earth's surface with little or no horizontal movement. Subsidence is caused by a variety of activities, which include, but are not limited to, withdrawal of groundwater, pumping of oil and gas from underground, the collapse of underground mines, liquefaction, and hydrocompaction. Lateral spreading is the horizontal movement or spreading of soil toward an open face. The soil profile of the project site is characterized by alluvial materials comprised of sand and clay underlying a layer of artificial fill within the upper 2.5 feet (LeRoy Crandall and Associates 1988). The Geotechnical Investigation found the project site is on essentially flat lying ground with no stability problems and no potential for lurching. Therefore, hazards from flooding, tsunamis, seiches, seismic settlement, and subsidence are considered negligible (Appendix I).

Foundations and other structural support features would be required to be designed to resist or absorb damaging forces from strong ground shaking. The project site is located on a flat area and would not be subject to landslides. The proposed project would be required to comply with CBC regulations that would ensure that the proposed buildings would meet seismic safety standards. In addition to compliance with mandatory CBC requirements, including Chapter 16 regarding earthquake loads and Chapter 18 discussing soils and foundations, and implementation of the General Plan goals and policies listed in Section 4.5.2, *Regulatory Setting*, would further reduce the potential for on- or off-site landslide, lateral spreading, subsidence, or collapse. Adherence to these goals and policies would help to reduce risks from seismic hazards.

Implementation of these goals and policies, in addition to compliance with applicable laws and regulations, would minimize the potential for on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse and would reduce this potential impact to a less than significant level.

Mitigation Measures

There would be no impact, so no mitigation is required.

Threshold 4:	Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Impact GEO-3 DEVELOPMENT FACILITATED BY THE PROJECT MAY BE LOCATED ON EXPANSIVE SOIL AND COULD BE SUBJECT TO LIQUEFACTION HAZARDS. COMPLIANCE WITH THE CBC WOULD REDUCE LIQUEFACTION HAZARDS. EXISTING SAFETY ELEMENT POLICIES WOULD APPLY TO DEVELOPMENT FACILITATED BY THE PROPOSED PROJECT IN HAZARD ZONES FOR LIQUEFACTION OR LATERAL SPREADING OF SOILS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Development facilitated by the project that is constructed on expansive soils could be subject to damage or could become unstable when the underlying soil shrinks or swells. The Geotechnical

Investigation indicates that there are no known geologic or soil conditions which would prevent the development of the property as planned. Furthermore, the Geotechnical Investigation indicates soils underlying the project site consist primarily of silt, silty sand, and sand with occasional layers of clay, as opposed to high clay content soils with high swelling potential, which are most indicative of expansive soils.

The adverse effects of expansive soils can be avoided through proper subsoil preparation, drainage, and foundation design. In order to design an adequate foundation, it must be determined if the site contains expansive soils through appropriate soil sampling and laboratory soils testing. Expansive soils are identified through expansion tests of samples of soil or rock, or by means of the interpretation of Atterberg limit tests, a standard soils testing procedure. The CBC includes requirements to address soil-related hazards, including testing to identify expansive soils and design specifications where structures are to be constructed on expansive soils. Typical measures to treat expansive soil conditions involve removal, proper fill selection, and compaction. In cases where soil remediation is not feasible, the CBC requires structural reinforcement of foundations to resist the forces of expansive soils. Compliance with the requirements of the CBC, as well as relevant General Plan, would reduce impacts related to expansive soils to a less than significant level, and no mitigation measures would be required.

Mitigation Measures

There would be no impact, so no mitigation is required.

4.5.4 Cumulative Impacts

The geographic scope for considering cumulative impacts to geology and soils is the project site and the immediately adjacent sites. This scope is appropriate because geological materials and soils occur at specific locales and are generally affected by activities directly on or immediately adjacent to the soils, and not by activities occurring outside the area. In addition, any geologic impacts of the project would be site-specific.

The project and other cumulative projects in the area would increase the population of the region, as well as the number of structures and supporting infrastructure in the region. Such development would expose residents and property to seismic and other geologic hazards. However, these seismic and soil issues are specific to each project and therefore, for purposes of this cumulative analysis, the geographic context is narrower as well. Because of the site-specific nature of these issues, each cumulative development would be required to address the issues on a case-by-case basis through preparation of required soils and geotechnical engineering studies and adherence to the recommendations therein, in addition to adherence to existing local and State laws and regulations including, among others, applicable CBC standards and requirements. Furthermore, the proposed project, by itself or in connection with other planned development in the surrounding area, would not exacerbate existing seismic risks and would therefore not result in a substantial contribution to cumulatively considerable impacts. Therefore, the impact of cumulative development would be less than significant. With the implementation of the identified mitigation for the proposed project as well as its adherence to the applicable laws and regulations, the proposed project's contribution to any cumulative geology and soils, including paleontological resources, would not be considerable.

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4.6 Greenhouse Gas Emissions

This section evaluates the potential impacts of greenhouse gas (GHG) emissions associated with the proposed project. Construction and operational GHG emissions associated with the proposed project are calculated using the California Emissions Estimator Model (CalEEMod), version 2022.1, Appendix F).

The proposed project's GHG emissions and its consistency with applicable GHG reduction plans are analyzed. The information in this section is based in part on applicable regional and local plans relevant to greenhouse gas emissions, such as the City of Long Beach Climate Action Plan (LB-CAP); the State's 2022 Scoping Plan; the Southern California Association of Governments' (SCAG's) 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy; and the City of Long Beach Land Use Element (2019).

4.6.1 Setting

Climate Change and Greenhouse Gases

Gases that absorb and re-emit infrared radiation in the atmosphere are called GHGs. The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO_2e), which is the amount of GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 30, meaning its global warming effect is 30 times greater than CO_2 on a molecule per molecule basis (Intergovernmental Panel on Climate Change [IPCC] 2021).[1]

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period. The term "climate change" is often used interchangeably with the term "global warming," but climate change is preferred because it conveys that other changes are happening in addition to rising temperatures. The baseline against which these changes are measured originates in historical records that identify temperature changes that occurred in the past, such as during previous ice ages. The global climate is changing continuously, as evidenced in the geologic record which indicates repeated episodes of substantial warming and cooling. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming over the past 150 years. The IPCC expressed that the rise and continued growth of

[1] The Intergovernmental Panel on Climate Change's (2021) *Sixth Assessment Report* determined that methane has a GWP of 30. However, the 2017 Climate Change Scoping Plan published by the California Air Resources Board uses a GWP of 25 for methane, consistent with the Intergovernmental Panel on Climate Change's (2007) *Fourth Assessment Report*. Therefore, this analysis utilizes a GWP of 25.

atmospheric CO_2 concentrations is unequivocally due to human activities in the IPCC's Sixth Assessment Report (2021). Human influence has warmed the atmosphere, ocean, and land, which has led the climate to warm at an unprecedented rate in the last 2,000 years. It is estimated that between the period of 1850 through 2019, that a total of 2,390 gigatonnes of anthropogenic CO_2 was emitted. It is likely that anthropogenic activities have increased the global surface temperature by approximately 1.07 degrees Celsius between the years 2010 through 2019 (IPCC 2021).

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat-trapping effect of GHGs, the earth's surface would be about 33 degrees Celsius (°C) cooler (World Meteorological Organization 2023). However, since 1750, estimated concentrations of CO_2, CH_4, and N_2O in the atmosphere have increased by 47 percent, 156 percent, and 23 percent, respectively, primarily due to human activity (IPCC 2021). GHG emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, are believed to have elevated the concentration of these gases in the atmosphere beyond the level of concentrations that occur naturally.

Greenhouse Gas Emissions Inventory

Global Emissions Inventory

In 2015, worldwide anthropogenic GHG emissions totaled 47,000 million metric tons (MT) of CO_2e, which is a 43 percent increase from 1990 GHG levels. Specifically, 34,522 MT of CO_2e, 8,241 MT of CO_2e of CH_4, 2,997 MT of CO_2e of N_2O, and 1,001 MT of CO_2e of fluorinated gases were emitted in 2015. The largest source of GHG emissions were energy production and use (includes fuels used by vehicles and buildings), which accounted for 75 percent of the global GHG emissions. Agriculture uses and industrial processes contributed 12 percent and six percent, respectively. Waste sources contributed three percent, international transport contributed two percent, and land-use change and forestry contributed to two percent of the total global GHG emissions (United States Environmental Protection Agency [USEPA] 2022).

United States Emissions Inventory

United States GHG emissions were 6,347.7 MT of CO_2e in 2021 or 5,593.5 MT CO_2e after accounting for sequestration. Emissions increased by 6.8 percent from 2020 to 2021. The increase from 2020 to 2021 was driven by an increase in CO_2 emissions from fossil fuel combustion which increased 7 percent relative to previous years and is primarily due to the economic rebounding after the COVID-19 Pandemic. In 2020, the energy sector (including transportation) accounted for 81 percent of nationwide GHG emissions while agriculture, industrial, and waste accounted for approximately 10 percent, six percent, and three percent respectively (USEPA 2023).

California Emissions Inventory

Based on the California Air Resource Board (CARB) California Greenhouse Gas Inventory for 2000-2020, California produced 369.2 MT of CO_2e in 2020, which is 35.3 MT of CO_2e lower than 2019 levels. The 2019 to 2020 decrease in emissions is likely due in large part to the impacts of the COVID-19 pandemic. The major source of GHG emissions in California is the transportation sector, which comprises 37 percent of the state's total GHG emissions. The industrial sector is the second largest source, comprising 20 percent of the state's GHG emissions, while electric power accounts for approximately 16 percent. The magnitude of California's total GHG emissions is due in part to its large size and large population compared to other states. However, a factor that reduces California's per

capita fuel use and GHG emissions compared to other states is its relatively mild climate. In 2016, the state of California achieved its 2020 GHG emission reduction target of reducing emissions to 1990 levels as emissions fell below 431 MT of CO_2e (CARB 2022). The annual 2030 statewide target emissions level is 260 MT of CO_2e (CARB 2017).

Local Emissions Inventory

The City of Long Beach conducted a citywide GHG emissions inventory in 2015, which represents the baseline inventory, or existing conditions in the city. The inventory determined that 2,799,123 MT of CO_2e were produced citywide in 2015. The largest source of GHG emissions is associated with stationary energy (residential, commercial, and industrial building energy), which contributed 49 percent of the City's total GHG emissions, followed by transportation at 44 percent (City of Long Beach 2022).

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. The year 2022 was the sixth warmest year since global records began in 1880 at 0.86°C (1.55°F) above the 20th century average of 13.9°C (57.0°F). This value is 0.13°C (0.23°F) less than the record set in 2016 and it is only 0.02°C (0.04°F) higher than the last year's (2021) value, which now ranks as the seventh highest (National Oceanic and Atmospheric Administration 2023). Furthermore, several independently analyzed data records of global and regional Land-Surface Air Temperature obtained from station observations jointly indicate that Land Surface Air Temperature and sea surface temperatures have increased. Due to past and current activities, anthropogenic GHG emissions are increasing global mean surface temperature at a rate of 0.2°C per decade. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades (IPCC 2014, 2018).

Potential impacts of climate change in California may include reduced water supply from snowpack, sea level rise, more extreme heat days per year, more large forest fires, and more drought years. *California's Fourth Climate Change Assessment* (California Natural Resource Agency 2019) includes regional reports that summarize climate impacts and adaptation solutions for nine regions of the state and regionally specific climate change case studies. However, while there is growing scientific consensus about the possible effects of climate change at a global and statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy. A summary follows of some of the potential effects that climate change could generate in California.

Air Quality and Wildfires

Scientists project that annual average maximum daily temperatures in California could rise by 2.4 to 3.2°C in the next 50 years and by 3.1 to 4.9°C in the next century. Higher temperatures are conducive to air pollution formation and rising temperatures could therefore result in worsened air quality in California. As a result, climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. In addition, as temperatures have increased in recent years, the area burned by wildfires throughout the state has increased, and wildfires have occurred at higher elevations in the Sierra Nevada Mountains (California Natural

Resource Agency 2019). If higher temperatures continue to be accompanied by an increase in the incidence and extent of large wildfires, air quality could worsen. Severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state. With increasing temperatures, shifting weather patterns, longer dry seasons, and more dry fuel loads, the frequency of large wildfires and area burned is expected to increase (California Natural Resources Agency 2021).

Water Supply

Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future precipitation trends and water supplies in California. Year-to-year variability in statewide precipitation levels has increased since 1980, meaning that wet and dry precipitation extremes have become more common (California Department of Water Resources 2018). For example, the winter of 2022-2023 had severe storms and flooding from increased rainfall and snowmelt, which the California Department of Water Resources identified as "the latest example that California's climate is becoming more extreme" (California Department of Wate Resources 2023). This uncertainty regarding future precipitation trends complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. The average early spring snowpack in the western United States, including the Sierra Nevada Mountains, decreased by about 10 percent during the last century. During the same period, sea level rose over 0.15 meter along the central and southern California coasts. The Sierra snowpack provides the majority of California's water supply as snow that accumulates during wet winters is released slowly during the dry months of spring and summer. A warmer climate is predicted to reduce the fraction of precipitation that falls as snow and the amount of snowfall at lower elevations, thereby reducing the total snowpack. Projections indicate that average spring snowpack in the Sierra Nevada and other mountain catchments in central and northern California will decline by approximately 66 percent from its historical average by 2050 (California Natural Resource Agency 2019).

Hydrology and Sea Level Rise

Climate change could affect the intensity and frequency of storms and flooding (California Natural Resource Agency 2019). Furthermore, climate change could induce substantial sea level rise in the coming century. Rising sea level increases the likelihood of and risk from flooding. The rate of increase of global mean sea levels between 1993 to 2022, observed by satellites, is approximately 3.4 millimeters per year, double the twentieth century trend of 1.6 millimeters per year (World Meteorological Organization 2013; National Aeronautics and Space Administration 2023). Global mean sea levels in 2013 were about 0.23 meter higher than those of 1880 (National Oceanic and Atmospheric Administration 2022). Sea levels are rising faster now than in the previous two millennia, and the rise will probably accelerate, even with robust GHG emission control measures. The most recent IPCC report predicts a mean sea level rise ranging between 0.25 to 1.01 meters by 2100 with the sea level ranges dependent on a low, intermediate, or high GHG emissions scenario (IPCC 2021). A rise in sea levels could erode 31 to 67 percent of southern California beaches and cause flooding of approximately 370 miles of coastal highways during 100-year storm events. This would also jeopardize California's water supply due to saltwater intrusion and induce groundwater flooding and/or exposure of buried infrastructure (California Natural Resource Agency 2019). Furthermore, increased

storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

Agriculture

California has an over $51 billion annual agricultural industry that produces over a third of the country's vegetables and three-quarters of the country's fruits and nuts (California Department of Food and Agriculture 2022). Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, certain regions of agricultural production could experience water shortages of up to 16 percent, which would increase water demand as hotter conditions lead to the loss of soil moisture. In addition, crop yield could be threatened by water-induced stress and extreme heat waves, and plants may be susceptible to new and changing pest and disease outbreaks (California Natural Resource Agency 2019). Temperature increases could also change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality (California Climate Change Center 2006).

Ecosystems

Climate change and the potential resultant changes in weather patterns could have ecological effects on the global and local scales. Soil moisture is likely to decline in many regions due to higher temperatures, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals: timing of ecological events; geographic distribution and range of species; species composition and the incidence of nonnative species within communities; and ecosystem processes, such as carbon cycling and storage (Parmesan 2006; California Natural Resource Agency 2019).

4.6.2 Regulatory Setting

a. Federal Regulations

The United States Supreme Court determined in *Massachusetts et al. v. Environmental Protection Agency et al.* ([2007] 549 U.S. 05-1120) that the United States EPA has the authority to regulate motor vehicle GHG emissions under the federal Clean Air Act. The United States EPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines and requires annual reporting of emissions. In 2012, the Unites States EPA issued a Final Rule that established the GHG permitting thresholds that determine when Clean Air Act permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities.

In *Utility Air Regulatory Group v. Environmental Protection Agency* (134 Supreme Court 2427 [2014]), the United States Supreme Court held the United States EPA may not treat GHGs as an air pollutant for purposes of determining whether a source can be considered a major source required to obtain a Prevention of Significant Deterioration or Title V permit. The Court also held that Prevention of Significant Deterioration permits otherwise required based on emissions of other pollutants may continue to require limitations on GHG emissions based on the application of Best Available Control Technology.

b. State Regulations

CARB is responsible for the coordination and oversight of state and local air pollution control programs in California. There are numerous regulations aimed at reducing the state's GHG emissions. These initiatives are summarized below. For more information on the Senate and Assembly Bills (AB), executive orders, building codes, and reports discussed below, and to view reports and research referenced below, please refer to the following websites: https://www.energy.ca.gov/data-reports/reports/californias-fourth-climate-change-assessment, www.arb.ca.gov/cc/cc.htm, and https://www.dgs.ca.gov/BSC/Codes.

California Advanced Clean Cars Program

AB 1493 (2002), California's Advanced Clean Cars program (referred to as "Pavley"), requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." On June 30, 2009, the United States EPA granted the waiver of Clean Air Act preemption to California for its GHG emission standards for motor vehicles, beginning with the 2009 model year, which allows California to implement more stringent vehicle emission standards than those promulgated by the United States EPA. Pavley I regulates model years from 2009 to 2016 and Pavley II, now referred to as "Low Emission Vehicle III GHG," regulates model years from 2017 to 2025. The Advanced Clean Cars program coordinates the goals of the Low Emission Vehicle, Zero Emissions Vehicles, and Clean Fuels Outlet programs and would provide major reductions in GHG emissions. By 2025, the rules will be fully implemented, and new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels (CARB 2011).

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

The "California Global Warming Solutions Act of 2006," (AB 32), outlines California's major legislative initiative for reducing GHG emissions. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHG emissions to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 target of 431 MT of CO_2e, which was achieved in 2016. CARB approved the Scoping Plan on December 11, 2008, which included GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among others (CARB 2008). Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted since the Scoping Plan's approval.

The CARB approved the 2013 scoping Plan update in May 2014. The update defined the CARB's climate change priorities for the next five years, set the groundwork to reach post-2020 statewide goals, and highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluated how to align the state's longer term GHG reduction strategies with other state policy priorities, including those for water, waste, natural resources, clean energy, transportation, and land use (CARB 2014).

On September 8, 2016, the governor signed Senate Bill (SB) 32 into law, extending the California Global Warming Solutions Act of 2006 by requiring the state to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December

14, 2017, the CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, and implementation of recently adopted policies and legislation, such as SB 1383 and SB 100 (discussed later). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally appropriate quantitative thresholds consistent with statewide per capita goals of six MT of CO_2e by 2030 and two MT of CO_2e by 2050 (CARB 2017). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, sub-regional, or regional level), but not for specific individual projects because they include all emissions sectors in the state (CARB 2017).

Assembly Bill 1279

AB 1279, "The California Climate Crisis Act," was passed on September 16, 2022, and declares the State will achieve net zero GHG emissions as soon as possible, but no later than 2045, and will achieve and maintain net negative GHG emissions thereafter. In addition, the bill states that the State would reduce GHG emissions by 85 percent below 1990 levels no later than 2045.

In response to the passage of AB 1279 and the identification of the 2045 GHG reduction target, CARB published the Final 2022 Climate Change Scoping Plan in November 2022 (CARB 2022). The 2022 Update builds upon the framework established by the 2008 Climate Change Scoping Plan and previous updates while identifying new, technologically feasible, cost-effective, and equity-focused paths to achieve California's climate target. The 2022 Update includes policies to achieve a significant reduction in fossil fuel combustion, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands (NWL) to reduce emissions and sequester carbon, and the capture and storage of carbon.

The 2022 update assesses the progress California is making toward reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan; addresses recent legislation and direction from Governor Newsom; extends and expands upon these earlier plans; implements a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045; and takes an additional step of adding carbon neutrality as a science-based guide for California's climate work. As stated in the 2022 Update, "The plan outlines how carbon neutrality can be achieved by taking bold steps to reduce GHGs to meet the anthropogenic emissions target and by expanding actions to capture and store carbon through the state's NWL and using a variety of mechanical approaches" (CARB 2022). Specifically, the 2022 Update:

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030
- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 and a reduction in anthropogenic emissions by 85 percent below 1990 levels
- Focuses on strategies for reducing California's dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs
- Integrates equity and protecting California's most impacted communities as driving principles throughout the document

- Incorporates the contribution of NWL to the state's GHG emissions, as well as their role in achieving carbon neutrality
- Relies on the most up-to-date science, including the need to deploy all viable tools to address the existential threat that climate change presents, including carbon capture and sequestration, as well as direct air capture
- Evaluates the substantial health and economic benefits of taking action
- Identifies key implementation actions to ensure success

In addition to reducing emissions from transportation, energy, and industrial sectors, the 2022 Update includes emissions and carbon sequestration in NWL and explores how NWL contribute to long-term climate goals. Under the Scoping Plan Scenario, California's 2030 emissions are anticipated to be 48 percent below 1990 levels, representing an acceleration of the current SB 32 target. Cap-and-Trade regulation continues to play a large factor in the reduction of near-term emissions for meeting the accelerated 2030 reduction target. Every sector of the economy will need to begin to transition in this decade to meet our GHG reduction goals and achieve carbon neutrality no later than 2045. The 2022 Update approaches decarbonization from two perspectives, managing a phasedown of existing energy sources and technologies, as well as increasing, developing, and deploying alternative clean energy sources and technology.

Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (SB 375), signed into law by the Governor in August 2008, enhances the state's ability to reach AB 32 goals by directing the CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. SB 375 aligns regional transportation planning efforts, regional GHG reduction targets, and affordable housing allocations. Metropolitan Planning Organizations (MPOs) are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the MPO's Regional Transportation Plan (RTP). Qualified projects consistent with an approved SCS or Alternative Planning Strategy (categorized as "transit priority projects") can receive incentives to streamline California Environmental Quality Act (CEQA) processing.

On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The Southern California Association of Governments (SCAG) was assigned targets of an 8 percent reduction in per capita GHG emissions from passenger vehicles by 2020[2] and a 19 percent reduction in per capita GHG emissions from passenger vehicles by 2035. In the SCAG region, SB 375 also provides the option for the coordinated development of subregional plans by the subregional councils of governments and the county transportation commissions to meet SB 375 requirements.

Senate Bill 1383

Adopted in September 2016, SB 1383 (Lara, Chapter 395, Statutes of 2016) requires the CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants. SB 1383 requires the strategy to achieve the following reduction targets by 2030:

- Methane – 40 percent below 2013 levels
- Hydrofluorocarbons – 40 percent below 2013 levels
- Anthropogenic black carbon – 50 percent below 2013 levels

[2] SCAG met 2020 GHG reduction but confirmation from CARB is still pending.

SB 1383 also requires the California Department of Resources Recycling and Recovery (CalRecycle), in consultation with the CARB, to adopt regulations that achieve specified targets for reducing organic waste in landfills.

Senate Bill 100

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

Executive Order B-55-18

On September 10, 2018, former Governor Brown issued Executive Order (EO) B-55-18, which established a new statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets established by SB 375, SB 32, SB 1383, and SB 100.

California Building Standards Codes

The California Code of Regulations (CCR) Title 24 is referred to as the California Building Standards Code. It consists of a compilation of several distinct standards and codes related to building construction including plumbing, electrical, interior acoustics, energy efficiency, and handicap accessibility for persons with physical and sensory disabilities. The current iteration is the 2022 Title 24 standards. The California Building Standards Code's energy-efficiency and green building standards are outlined below.

Part 6 – Building Energy Efficiency Standards/Energy Code

CCR Title 24, Part 6 is the Building Energy Efficiency Standards or California Energy Code. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy demand. New construction and major renovations must demonstrate their compliance with the current Energy Code through submittal and approval of a Title 24 Compliance Report to the local building permit review authority and the California Energy Commission (CEC). The 2022 Title 24 standards are the applicable building energy efficiency standards for the proposed project because they became effective on January 1, 2023.

Part 11 – California Green Building Standards

The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11, first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 California Building Standards Code). The 2022 CALGreen includes mandatory minimum environmental performance standards for all ground-up new construction of residential and non-residential structures. It also includes voluntary tiers with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum mandatory CALGreen standards and may adopt additional amendments for stricter requirements.

The mandatory standards applicable to the proposed project require:

- 20 percent reduction in indoor water use relative to specified baseline levels[3]
- Waste Reduction:
  - Non-residential: Reuse and/or recycling of 100 percent of trees, stumps, rocks, and associated vegetation soils resulting from primary land clearing
- Inspections of energy systems to ensure optimal working efficiency
- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards
- Electric Vehicle (EV) Charging for New Construction:[4]
  - Non-residential land uses shall comply with the following EV charging requirements based on the number of passenger vehicle parking spaces:
    1) 0-9: no EV capable spaces or charging stations required
    2) 10-25: 4 EV capable spaces but no charging stations required
    3) 26-50: 8 EV capable spaces of which 2 must be equipped with charging stations
    4) 51-75: 13 EV capable spaces of which 3 must be equipped with charging stations
    5) 76-100: 17 EV capable spaces of which 4 must be equipped with charging stations
    6) 101-150: 25 EV capable spaces of which 6 must be equipped with charging stations
    7) 151-200: 35 EV capable spaces of which 9 must be equipped with charging stations; and
    8) More than 200: 20 percent of the total available parking spaces of which 25 percent must be equipped with charging stations
- Non-residential land uses shall comply with the following EV charging requirements for medium- and heavy-duty vehicles: warehouses, grocery stores, and retail stores with planned off-street loading spaces shall install EV supply and distribution equipment, spare raceway(s) or busway(s) and adequate capacity for transformer(s), service panel(s), or subpanel(s) at the time of construction based on the number of off-street loading spaces as indicated in Table 5.106.5.4.1 of the California Green Building Standards
- Bicycle Parking:
  - Non-residential short-term bicycle parking for projects anticipated to generate visitor traffic: permanently anchored bicycle racks within 200 feet of visitor entrance for 5 percent of new visitor motorized vehicle parking spaces with a minimum of one 2-bike capacity rack; and/or
  - Non-residential buildings with tenant spaces of 10 or more employees/tenant-occupants: secure bicycle parking for 5 percent of the employee/tenant-occupant vehicle parking spaces with a minimum of one bicycle parking facility

[3] Similar to the compliance reporting procedure for demonstrating Energy Code compliance in new buildings and major renovations, compliance with the CALGreen water-reduction requirements must be demonstrated through completion of water use reporting forms. Buildings must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified in CALGreen or a reduced per-plumbing-fixture water use rate.

[4] EV Capable = a vehicle space with electrical panel space and load capacity to support a branch circuit and necessary raceways to support EV charging; EV-ready = a vehicle space which is provided with a branch circuit and any necessary raceways to accommodate EV charging stations, including a receptacle for future installation of a charger (see 2022 California Green Building Standard Code, Title 24 Part 11 for full explanation of mandatory measures, including exceptions).

- Shade Trees (Non-Residential):
  - Surface parking: minimum No. 10 container size or equal shall be installed to provide shade over 50 percent of the parking within 15 years (unless parking area covered by appropriate shade structures and/or solar)
  - Landscape areas: minimum No. 10 container size or equal shall be installed to provide shade of 20 percent of the landscape area within 15 years; and/or
  - Hardscape areas: minimum No. 10 container size or equal shall be installed to provide shade of 20 percent of the landscape area within 15 years (unless covered by applicable shade structures and/or solar or the marked area is for organized sports activities)

The voluntary Tier I and Tier II standards require:

- Tier I
  - Stricter energy efficiency requirements
  - Stricter water conservation requirements for specific fixtures
  - minimum 65 percent reduction in construction waste with third-party verification Minimum 10 percent recycled content for building materials
  - Minimum 20 percent permeable paving
  - Minimum 20 percent cement reduction
- Tier II
  - Stricter energy efficiency requirements
  - Stricter water conservation requirements for specific fixtures
  - Minimum 75 percent reduction in construction waste with third-party verification
  - Minimum 15 percent recycled content for building materials
  - Minimum 30 percent permeable paving; and/or
  - Minimum 25 percent cement reduction

California Integrated Waste Management Act (Assembly Bill 341)

The California Integrated Waste Management Act of 1989, as modified by AB 341 in 2011, requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows: (1) diversion of 25 percent of all solid waste by January 1, 1995, through source reduction, recycling, and composting activities and (2) diversion of 50 percent of all solid waste on and after January 1, 2000.

Executive Order N-79-20

On September 23, 2020, Governor Newsom issued EO N-79-20, which established the following new statewide goals:

- All new passenger cars and trucks sold in-state to be zero-emission by 2035
- All medium- and heavy-duty vehicles in the state to be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks
- All off-road vehicles and equipment to be zero-emission by 2035 where feasible

EO N-79-20 directs CARB, the Governor's Office of Business and Economic Development, the CEC, the California Department of Transportation, and other state agencies to take steps toward drafting regulations and strategies and leveraging agency resources toward achieving these goals.

The California Climate Crisis Act (Assembly Bill 1279)

AB 1279 was passed on September 16, 2022. It declares the state will achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045; achieve and maintain net negative greenhouse gas emissions; and ensure that by 2045, statewide anthropogenic greenhouse gas emissions are reduced to at least 85% below 1990 levels. The bill requires 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.

Clean Energy, Jobs, and Affordability Act of 2022 (Senate Bill 1020)

Adopted on September 16, 2022, SB 1020 creates clean electricity targets for eligible renewable energy resources and zero-carbon resources to supply 90 percent of retail sale electricity by 2035, 95 percent by 2040, 100 percent by 2045, and 100 percent of electricity procured to serve all state agencies by 2035. This bill shall not increase carbon emissions elsewhere in the western grid and shall not allow resource shuffling.

c. Local Regulations

2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, the economy, community development and the environment. On September 3, 2020, SCAG's Regional Council formally adopted the 2020-2045 RTP/SCS (titled Connect SoCal). The 2020-2045 RTP/SCS builds upon the progress made through implementation of the 2016-2040 RTP/SCS and includes ten goals focused on promoting economic prosperity, improving mobility, protecting the environment, and supporting healthy/complete communities. The SCS implementation strategies include focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, and supporting implementation of sustainability policies. The SCS establishes a land use vision of center focused placemaking, concentrating growth in and near Priority Growth Areas, transferring of development rights, urban greening, creating greenbelts and community separators, and implementing regional advance mitigation (SCAG 2020).

City of Long Beach General Plan Land Use Element

The City of Long Beach General Plan Land Use Element (Land Use Element) was adopted in December 2019. The Land Use Element directs the long-term physical development of the city by guiding use, form, and the characteristics of improvements on the land. The following goal, strategy, and policy are applicable to the proposed project (City of Long Beach 2019):

Goal No. 1: Implement Sustainable Planning and Development Practices

Strategy No. 1: Support sustainable urban development patterns

LU Policy 1-4: Require electric vehicle charging stations to be installed in new commercial, industrial, institutional and multiple-family residential development projects. Require that all

parking for single-unit and two-unit residential development projects be capable of supporting future electric vehicle supply equipment.

LU Policy 1-6: Require that new building construction incorporate solar panels, vegetated surface, high albedo surface and/or similar roof structures to reduce net energy usage and reduce the heat island effect.

City of Long Beach Climate Action Plan

The LB-CAP was adopted on August 16, 2022 (Long Beach 2022a). The LB-CAP is intended to guide the City in preparing for and protecting the city and its residents from future climate impacts. The LB-CAP provides a framework for creating and updating policies, programs, practices, and incentives for the City to reduce its GHG footprint and ensure the community and physical assets are better protected from the impacts of climate change. The LB-CAP also includes a GHG inventory and reduction plan to achieve a 40 percent reduction in GHG emissions below 1990 levels to achieve net zero emissions by 2045. In addition to the year 2030 target, the LB-CAP also includes a long-term net carbon neutrality goal for year 2045. This goal would require a reduction in GHG of 1,513,047 MTCO2e. To meet the 2030 reduction target, the LB-CAP includes 21 mitigation actions covering the transportation, building energy, and waste sectors. Full implementation of these mitigation actions would reduce emissions in the transportation, building energy, and waste sectors by 8 percent, 68 percent, and 24 percent, respectively. In addition to mitigation actions, the LB-CAP also includes 40 various adaptation actions that address extreme heat, air quality, drought, and sea level rise and flooding (Long Beach 2021).

4.6.3 Impact Analysis

a. Methodology and Significance Thresholds

Methodology

Calculations of CO_2, CH_4, and N_2O emissions are provided to identify the magnitude of potential effects of the proposed project related to GHG emissions. The analysis focuses on CO_2, CH_4, and N_2O because these comprise 98 percent of all GHG emissions by volume and are the GHG emissions the proposed project would emit in the largest quantities (IPCC 2014). Emissions of all GHGs are converted into their equivalent GWP in terms of CO_2 (i.e., CO_2e). Minimal amounts of other GHGs (such as chlorofluorocarbons [CFCs]) would be emitted; however, these other GHG emissions would not substantially add to the total. GHG emissions associated with proposed project construction and operational activity were calculated using the CalEEMod version 2022.1 (see Appendix F for calculations).

Construction

During construction, the proposed project would generate GHG emissions primarily from the use of internal combustion engines to power on-site equipment as well as off-site transportation of workers and materials. Further detail for the assumptions included in the modeling of GHG emissions is provided in Section 4.1, *Air Quality*. Because construction emissions occur for a limited period of a project's lifetime, as a standard practice, GHG emissions from construction are amortized over a presumed project lifetime. The proposed project's GHG construction emissions are amortized for the lifetime of the proposed project, which is 50 years based on applicant provided information.

Operation

During operation, the proposed project would generate GHG emissions from area sources, energy use, mobile sources, water use, and waste disposal. Further detail for the assumptions included in the modeling of GHG emissions is provided in Section 4.1, *Air Quality*. Assumptions used for the estimation of GHG emissions that are not applicable to criteria pollutant emissions, and therefore not included in the methodology of Section 4.1, *Air Quality*, are detailed below:

- The proposed project's CalEEMod model uses default CalEEMod assumptions for energy and solid waste sources for the industrial warehouse building and parking lot land uses
- GHG emissions from construction of the proposed project were amortized over a 30-year period and added to annual operational emissions to determine the proposed project's total annual GHG emissions (SCAQMD 2008)

Significance Thresholds

Appendix G of the CEQA Guidelines considers a project to have a significant impact related to greenhouse gas emissions if the project would do either of the following:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases

Most individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (*CEQA guidelines*, Section 15064[h][1]).

The adopted CEQA Guidelines provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. According to the CEQA Guidelines Section 15183.5, projects can tier from a qualified GHG reduction plan, which allows for project-level evaluation of GHG emissions through comparison of the project's consistency with the GHG reduction policies included in a qualified GHG reduction plan.

The LB-CAP is a qualified CAP that aims to reduce Long Beach's GHG emissions by 40 percent below 1990 levels by 2030 and net carbon neutrality by 2045. The LB-CAP provides a consistency checklist that, on a project-by-project basis, would collectively achieve the LB-CAP's target emission level for new development. Therefore, the proposed project is evaluated based on consistency with the LB-CAP Checklist.

Instructions for LB-CAP Checklist

Project applicants shall complete the following steps to demonstrate conformance with the LB-CAP Checklist:

- Step 1. Demonstrate consistency with the City's General Plan
- Step 2. Determine if project screens out of LB-CAP Action consistency

- Step 3. Demonstrate consistency with the LB-CAP GHG Emissions Reduction Actions
- Step 4. Identify alternative project emission reduction measures and additional GHG reductions
- Step 5. Demonstrate consistency with LB-CAP Adaptation Actions

All projects must complete steps 1-3 and 5 to show consistency with the LB-CAP Checklist. Projects that cannot show consistency in Step 3 can propose alternative GHG emission reduction measures, in which case they must also complete Step 4. Alternative Project Measures and Additional GHG Reductions.

STEP 1

The process for determining general plan consistency is as follows:

1. Is the project consistent with the existing land use designation of the 2019 Land Use Element? If yes, move to Step 2 below. If no:
2. Does the project achieve emissions of 1.4 MTCO2e per service population or less? If yes, the project is considered consistent with the LB-CAP and the analysis is complete (no project specific GHG impact analysis would be required). If not:
3. Does the project result in fewer GHG emissions per service population than the future no project development based on existing land use designations at the project site? If yes, move to Step 2 below. If no, the proposed project may not tier from the LB-CAP's EIR and must prepare a comprehensive project-specific analysis of GHG emissions and impacts and incorporate the measures in this Checklist to the extent feasible

STEP 2

Projects may be screened out of the LB-CAP Checklist if the project would achieve emission of 1.4 MT of CO_2e per service population or less, and the project is considered consistent with the LB-CAP Actions and the analysis is complete. Additionally, projects may skip completion of the Transportation subsection of the LB-CAP Action Screening Criteria section if they meet one of four transportation screening criteria:

1. Located in a Transit Priority Area or High Quality Transit Area (HQTA) as defined by Southern California Association of Governments (SCAG)
2. Includes local-serving retail (e.g., grocery stores, pharmacies, or restaurants) less than 50,000 square feet
3. Includes 100% affordable housing
4. Would result in fewer than 110 daily trips per day

Any project which meets these criteria would still need to demonstrate consistency with the building energy and waste LB-CAP Actions by completing the Building Energy and Waste sections of the LB-CAP Checklist.

STEP 3

The proposed project must demonstrate consistency with the LB-CAP Action requirements listed in Table 1 of the LB-CAP Checklist. All projects shall complete Building Energy, Waste, and Transportation sections. Tier 1 LB-CAP Action consistency requirements are required for all discretionary projects to demonstrate consistency with the LB-CAP. Tier 1 measures are required because they are either:

1) quantified as part of the City's GHG reduction pathway for new development; or 2) required through ordinance, building code, or other city planning requirements (such as the Bicycle Master Plan). Tier 1 measures required for the Building and Energy sector include zero carbon electricity, building energy efficiency, municipal project energy efficiency measures and solar photo voltaic (PV) installations, and compliance with building energy codes and ordinances. Tier 1 measures for the Transportation sector include trip reduction features to reduce vehicle miles traveled (VMT), incorporation of pedestrian, bicycle, and electric vehicle charging infrastructure, and compliance with the City's Transportation Demand Management (TDM) Ordinance and Traffic Impact Analysis (TIA) Guidelines. Tier 1 measures required for the Waste sector include recyclable materials recycling and organics composting. If a project does not include specific Tier 1 measures, quantifiably equivalent measures for GHG emission reductions must be provided for the project to be considered consistent with the proposed LB-CAP. Tier 2 measures are encouraged for all discretionary projects to the maximum extent feasible, although not required.

STEP 4

Projects that propose alternative GHG emission reduction measures to those identified in Step 3 above (LB-CAP Checklist Table 1) or propose to include additional GHG emission reduction measures beyond those described in Step 3 above shall provide a summary explanation of the proposed measures and demonstrate GHG reductions achievable though the proposed measures. All alternative actions must achieve the same or greater level of GHG emission reductions as the required Tier 1 LB-CAP Action(s) that they are replacing. This will ensure that projects which cannot comply with certain Tier 1 LB-CAP Actions will still be consistent with the LB-CAP's target emissions level for new development and would not inhibit the LB-CAP from achieving its citywide emission reduction target for 2030.

STEP 5

Projects must demonstrate consistency with the LB-CAP Adaptation Action requirements listed in Table 3 of the LB-CAP Checklist (Appendix J of this EIR) or explain why the strategies are not applicable or are not feasible. The project must demonstrate consistency with adaptation actions for extreme heat, air quality, drought, and sea level rise and flooding. All adaptation actions are encouraged to be incorporated into future discretionary projects, as applicable. However, many of these actions may be implemented by the City or other agencies and may not all be subject to CEQA. The adaptation actions in the LB-CAP are described for citywide implementation at a programmatic level, and the LB-CAP Checklist translates those actions into recommendations for strategies that may be incorporated at the project level for future developments. Projects must implement all applicable and feasible LB-CAP Adaptation Action consistency requirements to demonstrate their consistency with the LB-CAP as a whole.

In addition to consistency with the LB-CAP Checklist, goals and policies from regional and local plans such as the 2022 Scoping Plan, SCAG's Connect SoCal, and City of Long Beach General Plan adopted for the purposes of reducing GHG emissions and mitigating the effects of climate change are included in the analysis.

Threshold 1:	Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
Threshold 2:	Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Impact GHG-1 THE PROPOSED PROJECT WOULD GENERATE TEMPORARY AND LONG-TERM INCREASES IN GREENHOUSE GAS EMISSIONS BUT WOULD BE CONSISTENT WITH THE CITY OF LONG BEACH CLIMATE ACTION PLAN CHECKLIST, 2022 SCOPING PLAN, SCAG 2020-2045 RTP/SCS, AND CITY OF LONG BEACH GENERAL PLAN. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Plans and policies have been adopted to reduce GHG emissions in the Southern California region, including the State's 2022 Scoping Plan, SCAG's 2020-2045 RTP/SCS, the City of Long Beach's General Plan, and the City of Long Beach LB-CAP. The proposed project's consistency with these plans and applicable policies is discussed in the following subsections. As discussed below, the proposed project would not conflict with plans and policies aimed at reducing GHG emissions. GHG emissions are provided for informational purposes.

Consistency with Applicable Plans and Policies

LB-CAP Checklist Overview

As previously discussed under *Significance Thresholds*, the City of Long Beach LB-CAP is a qualified GHG reduction plan consistent with the requirements of CEQA Guidelines Section 15183.5. Proposed project GHG emissions would be less than significant if it can be demonstrated that the proposed project would be consistent with the LB-CAP's Consistency Checklist. The LB-CAP Consistency Checklist for the proposed project is included as Appendix J and a summary is included below.

STEP 1: GENERAL PLAN AND 2019 LAND USE ELEMENT CONSISTENCY

The growth projections outlined in the 2019 General Plan Land Use Element were used in the City's LB-CAP to estimate citywide GHG emissions over time. Therefore, new development projects must be consistent with the Land Use Element to be consistent with the LB-CAP. Step 1 of the LB-CAP Consistency Checklist evaluates if new development is consistent with the existing land use designation of the 2019 Land Use Element. If a project is consistent with the 2019 Land Use Element, then the project proceeds to Step 2 of the Checklist. As shown in Map LU-7 Placetypes in the 2019 Land Use Element, and in Figure 4.8-1 in Section 4.8, *Land Use and Planning* of this EIR, the project site is in the Industrial Place Type (Long Beach 2019). Uses permitted include manufacturing of various products, industrial activities, service and repair, storage, transportation, communications, utilities and public services, retail, administrative or professional offices, and a variety of similar services typically found in a business center. The proposed project would involve construction of a 517,437 square foot combination warehouse and distribution center with accessory offices. Therefore, the analysis proceeds to Step 2 of the Checklist.

STEP 2: LB-CAP ACTION SCREENING CRITERIA

Certain projects may screen out of the LB-CAP Action Consistency Checklist if they meet certain criteria. These criteria are designed to ensure high efficiency and low GHG emissions and describe projects that would generally be consistent with the LB-CAP's GHG emission reduction actions for new development. Step 2 of the CAP Consistency Checklist evaluates if a project would achieve emissions

of 1.4 MT of CO_2e per service population per year. The following evaluates GHG emissions for the proposed project.

Construction and operation of the proposed project would generate GHG emissions. This analysis considers the combined impact of GHG emissions from both construction and operation. Calculations of CO_2, CH_4, and N_2O emissions are provided to identify the magnitude of potential effects of the proposed project.

Construction Emissions

Construction of the proposed project would generate temporary GHG emissions primarily from the operation of construction equipment on-site, as well as from vehicles transporting construction workers to and from the project site, and heavy trucks to transport building, concrete, and asphalt materials. As shown in Table 4.6-1, construction of the proposed project would generate 1,694 MT of CO_2e. Amortized over a 30-year period, construction of the proposed project would generate 56 MT of CO_2e per year.

Table 4.6-1 Construction GHG Emissions

Year	Emissions (MT of CO_2e)
2025	809
2026	808
2027	77
Total	**1,694**
Amortized over 30 years	**56**

MT = metric tons; CO_2e = carbon dioxide equivalents

Source: CalEEMod worksheets in Appendix F. See Table 2.1 "Overall Construction-Mitigated" emissions. Annual emissions results are shown for all emissions. The mitigated emissions account for proposed project sustainability features and/or compliance with specific regulatory standards.

Operational and Total Project Emissions

Operation of the proposed project would generate GHG emissions associated with area sources (e.g., landscape maintenance), energy and water usage, vehicle trips, wastewater, and solid waste generation.

As shown in Table 4.6-2, when combined with amortized construction emissions, the proposed project would result in 2,978 MT of CO_2e per year. The proposed project's emissions would be 12.0 MT of CO_2e/year/SP. These emissions would exceed the 1.4 of MT of CO_2e/year/SP screening threshold, which was developed to demonstrate consistency with the LB-CAP. Therefore, to assess consistency with the LB-CAP, this analysis proceeds to Step 3 of the checklist.

Table 4.6-2 Operational and Total Project Emissions

Emission Source	Annual Emissions (MT of CO_2e/year)
Construction	
Amortized over 30 years	**56**
Operational	
Mobile	1,509
Area	11
Energy	995
Water	243
Waste	164
Total Emissions	**2,978**
Employee Service Population	248
Emissions Per Service Population	12.0
Exceed Per Employee Service Population Threshold (1.4 MT of CO_2e/SP/yr.)?	**Yes**

MT CO_2e = metric tons of carbon dioxide equivalent
Source: Appendix F for CalEEMod outputs

STEP 3: DEMONSTRATE CONSISTENCY WITH LB-CAP GHG EMISSION REDUCTION ACTIONS

Projects must demonstrate consistency with the LB-CAP Action requirements listed in Table 1 of Appendix D of the LB-CAP, *Climate Action + Adaptation Plan Consistency Review Checklist*, or document why the strategies are not applicable or are infeasible. Projects need to complete the following steps described in the *Building Energy, Waste*, and *Transportation* sections below.

Building Energy

For all projects except heavy industry (but including light industrial projects such as the proposed project), the project must utilize 100 percent zero-carbon electricity on-site. The proposed project would incorporate a PV system consistent with Title 24 Building Energy Efficiency Standards for warehouse land uses; however, implementation of this energy efficiency measure would not provide 100 percent zero-carbon electricity on-site. Mitigation Measure GHG-1(a) below would require the proposed project to consume 100 percent carbon-free electricity, either through installing onsite renewable energy or participating in SCE Green Rate option. A combination of installing onsite renewable energy and offsite carbon-free electricity would be allowed. With implementation of Mitigation Measure GHG-1(a), the proposed project would be consistent with the LB-CAP checklist for Building Energy.

Waste

The proposed project must comply with all state and local requirements for recycling including, but not limited to, Chapter 8.60 *Solid Waste, Recycling, and Litter Prevention and Organic Waste Disposal Reduction* in the City's Municipal code. The proposed project shall comply with the following LB-CAP GHG Emissions Reduction Actions, which are also described in Mitigation Measure GHG-1(f):

- Comply with all Mandatory Construction & Demolition (C&D) Recycling Program Requirements, including Section 18.67.100
- Provide substantial storage, collection, and loading of recyclables in a manner that is convenient and safe for all users of the building. Ensure there are sufficient sizes and amount of collection containers for recyclables. Containers must be kept clean, be clearly labeled, and are co-located next to any other solid waste receptacles. Ensure sufficient pick up of collection containers to meet the needs of the occupants
- Provide proper storage, collection, and loading of organics in a manner that is convenient and safe for all users of the building. Ensure there are sufficient sizes of collection containers for organics. Containers must be kept clean, be clearly labeled, and are co-located next to any other solid waste receptacles. Ensure sufficient pick up of collection containers to meet the needs of the occupants
- The proposed project shall include space for multi-stream collection containers for both recycling and organics in any location where a solid waste container is traditionally housed. This includes both outdoor collection containers serviced by a waste hauler or indoor collection containers utilized by occupants. The proposed project must provide educational material and training to occupants and tenants in how to properly separate recyclables from all other solid waste and place recyclables in a separate container designated for recycling and organics
- Ensure that all occupants and tenants of the proposed project separate recyclables from all other refuse and place recyclables in a separate container designated for recycling and composting
- Ensure containers are audited annually to ensure proper service levels and to check for contamination. Report findings back to occupants within 30 days and to the City as requested
- Work with waste hauler to provide educational material to tenants at least on an annual basis
- Provide compliance data to the City as required for any current auditing program

Transportation

Projects that meet a screening criterion (such as being located in a Transit Priority Area; or having local-serving retail less than 50,000 square feet, 100 percent affordable housing units, or less than 100 total daily vehicle trips) would comply with the LB-CAP's transportation measure and screen out of further action. The proposed project does not meet the transportation screening criteria; therefore, it must comply with the following Tier 1 transportation measures, such as Incorporate Pedestrian Infrastructure, Incorporate Bicycle Infrastructure, Incorporate Electric Vehicle Charging Infrastructure, Comply with City Transportation Demand Management Ordinance, and Comply with the City's Transportation Impact Guidelines. The proposed project would be consistent with these requirements, as shown in Table 4.6-3 below.

Table 4.6-3 Transportation Consistency Requirements

LB-CAP Action Consistency Requirement	Project Consistency
9. Tier 1: Trip Reduction Features to Reduce Vehicle Miles Traveled The project must incorporate vehicle trip reduction features into the project design or as mitigation measures. These features must achieve a minimum five percent reduction in vehicle trips and VMT as compared to the project without such vehicle trip reduction features, as estimated through practices backed by substantial evidence with cited reduction potential in the TIA guidelines Appendix A. This can be achieved through the implementation of a project-specific TDM Plan (see checklist item #13), offering transit subsidies, incorporating pedestrian and bicycle infrastructure (see checklist items #10 and #11), implementing parking restrictions or pricing, or including other features and measures to reduce vehicle trips.	**Consistent.** The proposed project would implement items 10, 11, and 13 below to reduce vehicle trips and VMT. Home-based work VMT per employee in the 2027 Plus Project scenario is 18.8, which is less than both the home-based work VMT per employee of 19.8 in the 2027 No Project scenario and the County's baseline VMT of 20.2.
10. Tier 1: Incorporate Pedestrian Infrastructure 1. Pedestrian facilities and connections to public transportation consistent with the City's Mobility Element, CX3 Pedestrian Plan, and any other relevant governing plan 2. Increase sidewalk coverage to improve pedestrian access. 3. Improve degraded or substandard sidewalks 4. Maximize shade for pedestrians through tree planting and maintenance 5. Incorporate best practices to ensure pedestrian infrastructure is contiguous and links externally with existing and planned pedestrian facilities; best practices include high-visibility crosswalks, pedestrian hybrid beacons, and other pedestrian signals, mid-block crossing walks, pedestrian refuge islands, speed tables, bulb-outs (curb extensions), curb ramps, signage, pavement markings, pedestrian-only connections and districts, landscaping, and other improvements to pedestrian safety 6. Minimize barriers to pedestrian access and interconnectivity, such as walls, landscaping buffers, slopes, and unprotected crossings	**Consistent.** The project area would include sidewalks, crosswalks, and pedestrian signals. The major streets that provide access to the project site include Carson Street, Via Oro Avenue, and Santa Fe Avenue. These roadways have well-connected and maintained sidewalk networks near the project site. The proposed project would be consistent with this requirement.
11. Tier 1: Incorporate Bicycle Infrastructure. The project must incorporate bicycle infrastructure into its design: 1. Bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added off-street vehicle parking spaces. 2. Provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity and nothing less than CalGREEN requirements, whichever is more restrictive. 3. Bicycle facilities consistent with the City's Bicycle Master Plan, Urban Design Element, and meet or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen.	**Consistent.** With implementation of Mitigation Measure GHG-1(b) (listed at the end of this impact discussion), the proposed project would construct long- and short-term bicycle parking spaces consistent with the latest CalGREEN standards or at least 5 percent of motorized vehicle capacity, whichever is more restrictive. Incorporating offsite bicycle facilities such as bicycle lanes and bicycle trails are Citywide actions beyond the applicant's ability to conduct and are thus not applicable to the proposed project. The proposed project would be consistent with this requirement.

LB-CAP Action Consistency Requirement	Project Consistency
12. Tier 1: Incorporate Electric Vehicle Charging Infrastructure. The project must comply with any CalGREEN requirement, City ordinance, building code, or condition of approval that requires a certain amount of EV charging infrastructure and readiness. This may include minimum requirements for EV charging stations, EV capable parking spaces, and EV-ready parking spaces.	**Consistent.** With implementation of Mitigation Measure GHG-1(c) (listed at the end of this impact discussion), the proposed project would include 114 EV capable spaces and 29 EV charging stations based on the City and CalGREEN requirements. The proposed project would be consistent with this requirement.
13. Tier 1: Comply with City TDM Ordinance The project must comply with the City's TDM ordinance at the time of project approval. This may include preferential carpool/vanpool parking, bicycle parking, and shower facilities and locker rooms; trip reduction plans; transit-supportive infrastructure development; and similar strategies. Comply with any applicable VMT reduction target and incorporate any required monitoring mechanisms for development, subject to the ordinance.	**Consistent.** With implementation of Mitigation Measure GHG-1(d) (listed at the end of this impact discussion, the proposed project would be consistent with the requirements of the City's TDM ordinance for nonresidential development of 100,000 square feet or more. This would include easy and safe access to carpool vehicles, external pedestrian circulation, bus stop improvements, and safe access to bicycle parking facilities on-site. The proposed project would be consistent with this requirement.
14. Tier 1: Comply with City's Transportation Impact Guidelines The project must comply with the City's current Transportation Impact (TIA) Guidelines. Projects may screen out if they meet certain criteria, such as being located in a transit priority area or local-serving retail development less than 50,000 square feet. Projects which don't screen out must meet the VMT efficiency metrics identified by the TIA Guidelines (e.g., 11.8 daily VMT per capita for residential projects and 18.0 daily VMT per capita for office projects).	**Consistent.** Per OPR's technical advisory and the County's policy, home-based VMT per capita (resident) is the recommended metric to evaluate CEQA-related transportation impacts for industrial land uses. As stated in the technical advisory, OPR allows VMT to be measured as regional or citywide VMT per capita. As described in Section 4.11, *Transportation,* home-based work VMT per employee in the 2027 Plus Project scenario is 18.8, which is less than both the home-based work VMT per employee of 19.8 in the 2027 No Project scenario and the County's baseline VMT of 20.2.

STEP 4: IDENTIFY ALTERNATIVE PROJECT EMISSION REDUCTION MEASURES AND ADDITIONAL GHG REDUCTIONS

Projects that propose alternative GHG emission reduction measures to those identified in Table 1 of the LB-CAP Checklist or propose to include additional GHG emission reduction measures beyond those described in Table 1 shall provide a summary explanation of the proposed measures and demonstrate GHG reductions achievable though the proposed measures (Long Beach 2022). The proposed project would not include alternative measures from the proposed measures in Step 2 above and may therefore proceed to Step 5.

STEP 5: DEMONSTRATE CONSISTENCY WITH THE LB-CAP ADAPTATION ACTIONS

All proposed projects are required to complete Table 3, LB-*CAP Adaptation Action Consistency Checklist*, which identifies adaptation measures the City of Long Beach will pursue to adapt and protect against major anticipated climate change impacts. As shown in Table 4.6-4, the proposed project would include the following climate adaptation measures consistent with the LB-CAP.

Table 4.6-4 LB-CAP Adaptation Action Consistency Requirements

LB-CAP Adaptation Action Consistency Requirement	Project Consistency
Extreme Heat 1. Incorporate Cool Roofs, Cool Walls, Reflective Streets, Cool Surfaces, and Shade Canopies. 2. Incorporate Tree Plantings and Expand Urban Forest Cover. 3. Incorporate Bus Shelter Amenities	**Consistent.** The proposed project would incorporate reflective and cool roofing consistent with the latest iteration of Title 24 Building Energy Efficiency Standards. In addition, the proposed project would incorporate low water use plants based on Water Use Classification of Landscape Species standards. The proposed project would not incorporate a bus stop location; however, the project site is within a quarter mile of several bus stops on Long Beach Transit Route 4. Therefore, the LB-CAP action to incorporate bus shelter amenities is not applicable.
Air Quality 1. Install Photocatalytic Tiles 2. Include Urban Agriculture 3. Use Electric Lawn and Garden Equipment, Outdoor Power equipment, and other small equipment.	**Consistent.** The proposed project would be consistent with the latest iteration of the Title 24 Standards and incorporate a PV system consistent with the 2022 Building Energy Efficiency Standards for warehouse land uses. The proposed project would add a variety of trees and shrubs to the project site. With implementation of Mitigation Measure GHG-1(e), the proposed project would utilize electric lawn and gardening equipment for all landscaping activities. The project site is zoned Industrial, and urban agriculture would not be feasible to include in the proposed project because of its proposed land use and business operations. The project would be required to include electric lawn and gardening equipment for landscaping activities. Therefore, the proposed project would be consistent with the Air Quality LB-CAP requirements.
Drought 1. Implement Water Use Efficiency and Water Conservation 2. Incorporate Green Infrastructure and Green Streets. 3. Use Recycled Water and Greywater for Non-Portable Uses; includes rainfall capture.	**Consistent.** The proposed project would be consistent with the latest iteration of the Title 24 CALGreen standards and install water conservation and high-efficiency water fixture measures consistent with the LB-CAP checklist. Long Beach Water recycles water, which can supply industrial non-portable water needs. Therefore, the proposed project would use recycled water where available. Green infrastructure and green streets would be built by the City, and Item 2 "Incorporate Green Infrastructure and Green Streets" is therefore not applicable to the proposed project.
Sea Level Rise and Flooding 1. Comply with all City Floodplain and Sea Level Rise Regulations 2. Ensure that all critical infrastructure in the sea level rise vulnerability zone is elevated, relocated, or floodproofed. 3. Adapt Street Hardscapes and Waterfront Streets and Paths	**Consistent.** The proposed project would be consistent with the City of Long Beach Building Code Chapter 18.40 and the latest iteration of the Title 24 CALGreen Standards with infrastructure that would ensure protection from flooding events. The project site is not identified as an area of risk to sea level rise and storm surge, as shown in Appendix C of the LB-CAP. Therefore, neither the street improvements to Via Alcalde included in the proposed project nor any of the other streets surrounding the project site would need to be elevated. Therefore, adaptation policies related to sea level rise and street improvements are not applicable to the proposed project.

Source: City of Long Beach 2022

2022 SCOPING PLAN

The principal state GHG reduction plans and policies are AB 32, the California Global Warming Solutions Act of 2006, and the subsequent legislation, SB 32 and AB 1279. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020. The goal of SB 32 is to reduce GHG emissions to 40 percent below 1990 levels by 2030. In 2022, the State passed AB 1279, which declares the State will achieve net-zero GHG emissions by 2045 and will reduce GHG emissions by 85 percent below 1990 levels by 2045. The latest iteration of the Scoping Plan is the 2022 Scoping Plan, which focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the state's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities. The 2022 Scoping Plan's strategies that apply to the proposed project include the following:

- Reducing fossil fuel use, energy demand and vehicle miles traveled (VMT)
- Building decarbonization
- Maximizing recycling and diversion from landfills

The proposed project would be consistent with these goals through project design that would be consistent with the latest California 2022 Energy Code. In addition, the proposed building structures would incorporate PV provisions consistent with the requirements for nonresidential land uses as required by Mitigation Measure GHG-1(a). In addition, the proposed project would include EV charging parking spaces consistent with the City of Long Beach Municipal Code and Title 24 Standards. The proposed project would be served by SCE, which is required to increase its renewable energy procurement in accordance with SB 100 targets. The project area is served by several Los Angeles County Metropolitan Transit Authority (Metro) and Long Beach Transit (LBT) along Carson Street. The project site is located within a half mile of existing residential and commercial uses, which could encourage alternative modes of transportation such as walking, bicycling, and public transit. In addition, long-term and short-term bicycle parking spaces would be provided consistent with Title 24 Standards. As mentioned in the LB-CAP Checklist Overview above, the proposed project would be consistent with the action of Long Beach LB-CAP Checklist, which aims to be consistent with State's 2045 carbon neutrality goals. Therefore, the proposed project would not conflict with the 2022 Scoping Plan.

SCAG 2020-2045 RTP/SCS

On September 3, 2020, SCAG's Regional Council formally adopted the 2020-2045 RTP/SCS (titled Connect SoCal). The 2020-2045 RTP/SCS is forecast to help California reach its GHG reduction goals by reducing GHG emissions from passenger cars in the SCAG region by 8 percent below 2005 levels by 2020 and 19 percent by 2035 in accordance with the most recent CARB targets adopted in March 2018. The 2020-2040 RTP/SCS includes ten goals with corresponding implementation strategies for focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, and supporting implementation of sustainability policies. The proposed project is an infill development that would provide connectivity to existing residential, commercial, and educational areas. This could potentially reduce commute times to new job opportunities. The proposed project would allocate parking spaces to electric vehicles consistent with Title 24 Standards. This would include electric vehicle capable spaces, meaning infrastructure that would support the future installation of EV charging stations would be provided. As shown in Mitigation Measure GHG-1(c), the proposed project shall include 29 electric vehicle charging stations

and 114 electric vehicle capable spaces. Therefore, the proposed project would be consistent with the GHG emissions reduction strategies contained in the RTP/SCS.

CITY OF LONG BEACH GENERAL PLAN

The proposed project would be consistent with the project site's Placetype land use designation of Industrial and would comply with the policies from the Land Use Element shown in Table 4.6-5. As shown therein, the proposed project would be consistent with the land use policies related to GHG emissions contained in the General Plan.

Table 4.6-5 Consistency with Long Beach General Plan

Goal/Policy	Project Consistency
Land Use Element	
Goal 1 LU Policy 1-1: Promote sustainable development patterns and development intensities that use land efficiently and accommodate and encourage walking.	**Consistent.** The proposed project would be consistent with the latest iteration of the Title 24 Standards that incorporate sustainable building features. In addition, the proposed project would be within half a mile of existing residential and commercial uses that could potentially encourage walking. Therefore, the proposed project would support Goal 1 Policy-1-1.
Goal 1 LU Policy 1-4: Require electric vehicle charging stations to be installed in new commercial, industrial, institutional and multiple-family residential development projects. Require that all parking for single-unit and two-unit residential development projects be capable of supporting future electric vehicle supply equipment.	**Consistent.** As required by Mitigation Measure GHG-1c, the proposed project would include EV charging stations consistent with the Title 24 CALGreen Standards, which is approximately 29 parking stalls with EV charging stations. Therefore, the proposed project would support Goal 1 Policy 1-4.
Goal 1 LU Policy 1-6: Require that new building construction incorporate solar panels, vegetated surface, high albedo surface and/or roof structures to reduce net energy usage and reduce the heat island effect.	**Consistent.** The entire roof of the proposed project would be designed for solar readiness, consistent with the most current Title 24 CALGreen Standards and Mitigation Measure GHG-1a.

Source: City of Long Beach 2019

The proposed project would be consistent with the LB-CAP Checklist, 2022 Scoping Plan, SCAG's 2020-2045 RTP/SCS, and the City's General Plan. Therefore, the proposed project would be consistent with State and local policies for reducing GHG emissions, and proposed project impacts would be less than significant.

Mitigation Measures

GHG-1 Greenhouse Gas Emissions Reduction Actions

The proposed project would incorporate Tier 1 GHG emissions reduction actions to demonstrate consistency with the LB-CAP Checklist for new developments. The proposed project would incorporate the following actions:

a. The applicant/developer shall install onsite renewable energy systems or shall participate in SCE Green Rate (100 percent carbon-free electricity) to supply 100 percent carbon-free electricity to the project site. A combination of onsite and offsite energy supply with 100 percent carbon-free electricity can be used to satisfy the LB-CAP's zero-carbon electricity requirement

b. The applicant/developer shall provide short and long-term bicycle parking for at least five percent of motorized vehicle capacity and nothing less than CalGREEN requirements, whichever is more restrictive

c. The applicant/developer shall incorporate electric vehicle parking spaces consistent with LBMC 18.47.050 and CALGreen Section 5.106.5.3—Electric vehicle (EV) charging. At least twenty percent of all parking spaces shall be EV capable spaces (EVCS) (114 out of 570 total parking spaces) and at least 25 percent of these EVCS (29 out of 114 EVCS) must be equipped with charging stations

d. The applicant/developer shall comply with the City's of Long Beach TDM Ordinance for nonresidential development of 100,000 square feet by the following:

   - A safe and convenient zone in which vanpool and carpool vehicles may deliver or board their passengers
   - Sidewalks or other designated pathways following direct and safe routes from the external pedestrian circulation system to each building in the development
   - If determined necessary by the City to mitigate the project impact, bus stop improvements must be provided. The City will consult with the local bus service providers in determining appropriate improvements. When locating bus stops and/or planning building entrances, entrances must be designed to provide safe and efficient access to nearby transit stations/stops
   - Safe and convenient access from the external circulation system to bicycle parking facilities on-site

e. The applicant/developer shall utilize electric lawn and gardening equipment for all landscaping activities

f. The applicant/developer shall implement waste GHG emissions reduction actions by the following:

   - Comply with all Mandatory Construction & Demolition (C&D) Recycling Program Requirements, including Section 18.67.100
   - Provide substantial storage, collection, and loading of recyclables in a manner that is convenient and safe for all users of the building. Ensure there are sufficient sizes and amount of collection containers for recyclables. Containers must be kept clean, be clearly labeled, and are co-located next to any other solid waste receptacles. Ensure sufficient pick up of collection containers to meet the needs of the occupants
   - Provide proper storage, collection, and loading of organics in a manner that is convenient and safe for all users of the building. Ensure there are sufficient sizes of collection containers for organics. Containers must be kept clean, be clearly labeled, and are co-located next to any other solid waste receptacles. Ensure sufficient pick up of collection containers to meet the needs of the occupants
   - The proposed project shall include space for multi-stream collection containers for both recycling and organics in any location where a solid waste container is traditionally housed. This includes both outdoor collection containers serviced by a waste hauler or indoor collection containers utilized by occupants. The proposed project must provide educational material and training to occupants and tenants in how to properly separate recyclables from all other solid waste and place recyclables in a separate container designated for recycling and organics

- Ensure that all occupants and tenants of the proposed project separate recyclables from all other refuse and place recyclables in a separate container designated for recycling and composting
- Ensure containers are audited annually to ensure proper service levels and to check for contamination. Report findings back to occupants within 30 days and to the City as requested
- Work with waste hauler to provide educational material to tenants at least on an annual basis
- Provide compliance data to the City as required for any current auditing program

Significance After Mitigation

With incorporation of Mitigation Measure GHG-1, the proposed project would incorporate Tier 1 measures that are required for projects to be consistent with the LB-CAP Checklist, which aims to reduce Long Beach's GHG emissions by 40 percent below 1990 levels by 2030 and to achieve net carbon neutrality by 2045. Therefore, GHG impacts associated with the proposed project would be less than significant with mitigation incorporated.

4.6.4 Cumulative Impacts

GHG and climate change are, by definition, cumulative impacts. The geographic scope for considering cumulative impacts related to GHG emissions is the State of California. Although GHG emissions have worldwide repercussions, the contribution of the proposed project to cumulative impacts is addressed in light of the State's goals for reducing statewide emissions.

Statewide GHG emissions are an existing significant cumulative impact. As such, the State has established the following statewide emissions reductions targets:

- By 2020, reduce GHG emissions to 1990 levels
- By 2030, reduce GHG emissions to 40 percent below 1990 levels
- By 2045, to achieve carbon neutrality

GHG impacts are assessed in a cumulative context since no single project can cause a discernible change to the climate. Therefore, cumulative significance is based on the same thresholds as the proposed project. The LB-CAP provides a consistency checklist that, on a project-by-project basis, would collectively achieve the LB-CAP's target emission level for new development. Therefore, the proposed project is evaluated based on consistency with the LB-CAP Checklist. In addition, the significance of the proposed project's GHG emissions is evaluated on its consistency with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The analysis provides GHG emissions for informational purposes. For the proposed project, the most directly applicable adopted regulatory plans to reduce GHG emissions are the LB-CAP, 2022 Scoping Plan, SCAG's 2020-2045 RTP/SCS, and City of Long Beach General Plan.

As discussed under Impact GHG-1, the proposed project would be consistent with statewide, regional, and local plans for the reduction or mitigation of GHG emissions by including energy conservation measures required in the latest Title 24 Building Energy Efficiency Standards (Part 6) and Green Building Standards (Part 11). The proposed project would be consistent with the 2022 CALGreen Standards and include approximately 29 parking stalls with EV charging. In addition, the proposed project would be required to install on-site renewable energy systems or participate in a community solar program to supply 100 percent of the proposed project's estimated energy demand to the maximum extent possible or participate in Southern California Edison's Green Rate level power mix

(i.e., 100 percent carbon-free electricity). The project site is within half a mile of existing commercial and residential land uses, as well as public transit options, which could potentially reduce VMT per capita. As described in Section 4.11, *Transportation,* home-based work VMT per employee in the 2027 Plus Project scenario is 18.8, which is less than both the home-based work VMT per employee of 19.8 in the 2027 No Project scenario and the County's baseline VMT of 20.2. In addition, the proposed project would include long-term and short-term bicycle parking spaces consistent with the latest Title 24 Standards. The proposed project would promote alternative modes of transportation that would have the effect of reducing VMT and associated mobile GHG emissions. Therefore, the proposed project would be consistent with State, regional, and local plans for the reduction or mitigation of GHG emissions. Thus, based on the CEQA Guidelines for determining the significance of GHG emissions, while cumulative impacts are significant, the proposed project's contribution would not be considerable.

4.7 Hazards and Hazardous Materials

This section discusses the existing conditions and regulatory setting related to hazards and hazardous materials in the project area and describes the environmental setting for hazardous materials and waste. It also describes the project's potential impacts on residents and other sensitive receptors that could be exposed to potential hazards and/or hazardous materials and identifies mitigation measures where applicable. Information in this section is based primarily on the Phase I and Phase II Environmental Site Assessment (ESA) prepared for the project by Rincon Inc. in February 2023 and June 2023, respectively (Appendix K and Appendix L). Additional information was obtained from publicly available databases including the Department of Toxic Substances Control's (DTSC) EnviroStor and State Water Resources Control Board's (SWRCB) GeoTracker.

4.7.1 Setting

This section discusses the existing conditions related to hazards and hazardous materials in the proposed project area and describes the environmental setting for hazardous materials and waste. Residences and other sensitive receptors, such as schools, are also discussed as their proximate location to the project site affect sensitive receptor exposure to the potential hazards, as described below. A description of the project site relative to hazards and hazardous materials can also be found below.

Existing Conditions

The proposed project is located in the City of Long Beach, south of West Via Plata Street, east of Via Oro Avenue, west of Via Alcalde Avenue, and north of West Carson Street. The project site is within the Long Beach Oil and Gas Field and contains one abandoned dry hole, operated by General Exploration Co (API 04370517). The site is surrounded by a chain link fence and numerous ornamental trees. The area evaluated for hazards and hazardous materials impacts includes the project site and nearby properties that may have the potential to affect the proposed project. The project site is located near two sensitive receptors: Rancho Dominguez Preparatory School approximately 550 feet to the west and Dominguez Elementary School approximately 640 feet to the northwest[1].

Historical and Present Land Uses in the Project Vicinity

The historical records reviewed for these hazards and hazardous materials analysis included aerial photographs, topographic maps, historical fire insurance maps, and city directories as detailed in the following sections. Copies of the historical resources reviewed are included in Appendix K of this EIR.

Summary of Historical Uses

Project Site

According to the historical resources reviewed for the Phase I ESA, the project site was used for agricultural purposes from approximately 1928 through 1977. The General Exploration onsite well was drilled in 1944 and abandoned in 1944 without producing oil or gas and was plugged with cement

[1] These distances are from property line to property line. School buildings at Dominguez Elementary School are approximately 780 feet northwest of the project site, and school buildings at Rancho Dominguez Preparatory School are approximately 690 feet northwest of the project site.

to a depth of 717 feet. The historical use of the project site and the adjoining properties are included in Table 4.7-1.

Table 4.7-1 Historical Use of the Subject Property and Adjoining Properties

Year	Source	Subject Property Use	Adjoining Property Use
1896	Topographic Map (TM)	Undeveloped land	Northwest (NW): Undeveloped land followed by a light duty road trending east-west West (W): Undeveloped land followed by a light duty road trending north-south North (N): Undeveloped land followed by a light duty road trending east-west and a pond Northeast (NE): Undeveloped land followed by a light duty road trending east-west East (E): Undeveloped land Southeast (SE): Undeveloped land South (S): Undeveloped land Southwest (SW): Undeveloped land followed by a light duty road trending north-south
1899	TM	Similar to the 1896 TM	NW, W, N, NE, E, SE, S, SW: Similar to the 1896 TM
1902	TM	Similar to the 1899 TM	NW, W, NE, E, SE, S, SW: Similar to the 1899 TM N: Undeveloped land followed by a structure and a light duty road trending east-west
1924, 1925	TM	Similar to the 1902 TM	NW, NE, SE, S: Similar to the 1902 TM W: Undeveloped land and a Southern California Edison power line N: Undeveloped land E: Undeveloped land followed by a single rack railroad trending north-south SW: Undeveloped land and an unimproved road trending east-west
1928	Aerial Photograph (AP)	**Agricultural land (dry farming/grazing/ row crops)**	NW, W, NE: Agricultural land (dry farming/grazing/row crops) N, E: Agricultural land (dry farming/grazing/row crops) followed by a commercial structure SE, S, SW: A road trending east-west followed by agricultural land (dry farming/grazing/row crops)
1930	TM	Similar to the 1925 TM	NW, N, W NE, SE, SW: Similar to the 1935 TM S: A light duty road trending east-west followed by undeveloped land E: Undeveloped land followed by a Southern California Edison power line and a single track railroad trending north-south
1942	TM	Similar to the 1930 TM	NW: Undeveloped land followed by a single track railroad trending northeast-southwest and several light duty roads W, N: Undeveloped land followed by a single track railroad trending northeast-southwest NE: Undeveloped land E: Undeveloped land and two structures SE: A light duty road trending east-west followed by undeveloped land and a structure S: A light duty road trending east-west and an unimproved road trending north-south followed by undeveloped land SW: A light duty road trending east-west followed by undeveloped land

Year	Source	Subject Property Use	Adjoining Property Use
1943	TM	Similar to the 1942 TM	NW, W, N, NE, E, SE, S, SW: Similar to the 1942 TM
1947	TM	Similar to the 1943 TM	NW, W, N, NE, E, SE, S, SW: Similar to the 1943 TM
1947	AP	**Agricultural land (dry farming/row crops)**	NW, W, NE, SE, S, SW: Similar to the 1928 AP N: A road trending east-west, agricultural land (dry farming/grazing/row crops), and a residential structure E: Agricultural land (dry farming/grazing/row crops) and several residential structure
1949	TM	Similar to the 1947 TM	NW, W, N, NE, SE, SW: Similar to the 1943 TM E: Undeveloped land followed by several oil wells and a light duty road trending north-south S: A secondary highway trending east-west followed by undeveloped land and vacant land
1953	AP	Similar to the 1947 AP	NW, W, N, S, SW: Similar to the 1947 AP NE: Agricultural land (dry farming/grazing/row crops) followed by a primary highway that appears to be undergoing construction E: Agricultural land (row crops) followed by a primary highway that appears to be undergoing construction followed by several commercial structures SE: A highway overpass
1963	AP	Similar to the 1953 AP	NW, W: Agricultural land (dry farming/grazing/row crops) followed by a single track railroad trending northeast-southwest N: Similar to the 1953 AP NE: Agricultural land (dry farming/grazing/row crops) followed by a multi-lane highway E: Agricultural land (dry farming/grazing/row crops) and two commercial/farming structures followed by a multi-lane highway and vacant land SE: A multi-lane highway S: A road trending east-west followed by agricultural land (dry farming/grazing/row crops) and vacant land SW: A road trending east-west followed by agricultural land (dry farming/grazing/row crops)
1964	TM	Similar to the 1949 TM	NW, W, N, NE, S, SE, SW: Similar to the 1949 TM E: Undeveloped land followed by a primary 6 lane highway and several oil wells
1972	AP	Similar to the 1963 AP	NW, W, N, NE, S, SE, SW: Similar to the 1963 AP E: Agricultural land (dry farming/grazing/row crops) followed by a multi-lane highway and several commercial structures
1972	TM	Similar to the 1964 TM	NW, W, N, NE, S, SE, SW: Similar to the 1964 TM E: Undeveloped land followed by a primary 6 lane highway and several oil wells and structures
1977	AP	**Agricultural land (dry farming/grazing/ row crops) and a road trending north-south**	NW, W, N, NE, E, S, SE, SW: Similar to the 1972 AP

Year	Source	Subject Property Use	Adjoining Property Use
1981	AP	Vacant land with a road traversing the subject property from the south to north and road trending north-south (Via Alcalde Ave.)	NW: A road followed by vacant land and a single track railroad trending northeast-southwest W: A road trending north-south followed by vacant land and a single track railroad N: A road trending east-west followed by vacant land NE: A road followed by a multi-lane highway E: A road trending north-south followed by a multi-lane highway and several commercial structures and an associated parking lot SE: A multi-lane highway S: A road trending east-west followed by vacant land and a light duty road trending north-south SW: Intersection of two roads followed by vacant land
1981	TM	Similar to the 1972 TM	NW, W, N, E, NE, S, SE, SW: Similar to the 1972 TM
1985	City Directory (CD)	No listings	NW, W, N, NE, E, SE, SW: No listings S: Shared Medical Systems (3910 Via Oro Ave.), NPPONDENSO of Los Angeles Inc. (3900 Via Oro Ave.)
1989	AP	Vacant land and Via Alcalde Avenue	NW, N, SE: Similar to the 1981 AP W: A road trending north-south followed by vacant land and two commercial structures NE: A road followed by a multi-lane highway and a parking lot E: A road trending north-south followed by a multi-lane highway and two commercial structures and associated parking lots S: A road trending east-west followed by two commercial structures and associated parking lots SW: Intersection of two roads followed by a commercial structure
1990	CD	No listings	NW, N, NE, E, SE: No listings W: E & L Engineering Long Beach, Catalina Beverage Co. Inc., OPHR Technology Inc. (4001 Via Oro Ave.); Astrophysics Research Corp. (4031 Via Oro Ave.) S: Senorma TIC Electronics Corp. Long Beach, 100 20th Century Ins. Co., 200 Interstate Consolidated Industries, 200 Pacific Interstate Construction, 210 Donnelley Information Publishing, 208 VPSI Inc. (3960 Via Oro Ave.); NPPONDENSO of Los Angeles Inc. (3900 Via Oro Ave.) SW: Goodxglick Company, Dana Marketing Inc., 200 Hellman International Forwarders Inc. (1500 West Carson Street)
1994	AP	Vacant land and Via Alcalde Avenue	NE, E, SE, S, SW: Similar to the 1989 AP NW: A road followed by a commercial structure and associated parking lot W: A road trending north-south followed by several commercial structures and vacant land N: A road trending east-west followed by two commercial structures
1994	CD	No listings	NW, N, NE, E, SE: No listings W: Catalina Beverage Co., Crawford & Co. (4001 Via Oro Ave.) S: Nippondenso of LA (3900 Via Oro Ave.); VPSI Inc., Donnelley Information Pub., 20th Century Insurance Co. (3960 Via Oro Ave.) SW: Hellmann International Forwarder, Dillingham Construction, Wells Fargo Security, (1500 West Carson St.)

Year	Source	Subject Property Use	Adjoining Property Use
1995	CD	No listings	NE, E, SE: No listings NW: Crown Lift Trucks (4061 Via Oro Ave.) W: Catalina Beverage Co. Inc., Crawford & Coffee (4001 Via Oro Ave.); EG & G Astrophysics Research Corp. (4031 Via Oro Ave.); Skma Inc. (4041 Via Oro Ave.) N: All Trade (1431 West Via Plata St.), Foreston Trends (1483 West Via Plata St.) S: 205 Sensorma Tic Electronics Corp., 100 20th Century Insurance Co., Wells Fargo Security Products, 210 Donnelley Information Publishing, Senormatic Electronics Corp., CPSI Commuter Van Pool (3960 Via Oro Ave.); NPPONDENSO of Los Angeles Inc. (3900 Via Oro Ave.) SE: No listings SW: 100 Nelsen-Dillingham Builders, 115 South Coast Air Quality Management District, 200 Hellmann International Forwarders Inc., 201 Guardsmark Inc. (150 West Carson St.)
1999	CD	No listings	NW, N, NE, E, SE: No listings W: Catalina Beverage Company Inc., Michael Holmes, American Risk Consultants (4001 Via Oro Ave.) S: Denso Sales California Inc., Nippondenso of Los Angeles (3900 Via Oro Ave.); Wells Fargo Security Products, 20th Century Insurance Company (3960 Via Oro Ave.) SW: Rene Catalasan, South Coast Air Quality Management District, Nelsen Dillingham Builders, Guardsmark Inc. Sales Office, (1500 West Carson St.)
2000	CD	No listings	N, NE, E, SE, SW: No listings NW: Crown Lift Trucks (4061 Via Oro Ave.) W: Catalina Beverage Co., Global Risk Consulting (4001 Via Oro Ave.); Astrophysics Research 310B (4031 Via Oro Ave.); Kett Engineering Co. (4035 Via Oro Ave.); SKMA Inc., Mr. Darius (4041 Via Oro Ave.) S: 20th Century Insurance Co., (3960 Via Oro Ave.), Denso Sales Ca (3900 Via Oro Ave.)
2002	AP	Vacant land	NW, N, SE, S, SW: W: A road trending north-south followed by several commercial structures NE: A road followed by multi-lane highway and a train storage yard E: A road trending north-south followed by a multi-lane highway and two commercial structures and several multi-track railroads
2004	CD	No listings	NW, N, NE, E, SE: No listings W: Kenneth Kendrick, E & L Engineering Inc., Children's Home Security of CLFRN, Catalina Beverage Co. (4001 Via Oro Ave.) S: Denso Sales California Inc., Kazutaka Nonoyama (3900 Via Oro Ave.); Microlog Corp. (3960 Via Oro Ave.) SW: Lorie Mangan (1500 West Carson St.)

Year	Source	Subject Property Use	Adjoining Property Use
2005	AP	Vacant land, several unpaved roads traversing the subject property, Via Alcalde Avenue, and three possible concrete pads near the southern property line	NW, W, N, NE, E, S, SE, SW: Similar to the 2002 AP
2006	CD	No listings	NE, E, SE: No listings NW: Crown Lift Trucks (4061 Via Oro Ave.) W: Intexplastics, Corp. Zeetoy Sinc, Corp. Intex Recreation, Sales Co. Intex Recreation (4001 Via Oro Ave.); Sons Inc., Kett Engineering, Corp. Norm Wilson (4035 Via Oro Ave.); Fiber Resource, Co Guangy Group, International Co. Polyasia Film Co., USA Inc. Pacifica (4041 Via Oro Ave.) N: All Trade (1431 West Via Plata St.), Foreston Trends (1483 West Via Plata St.) S: Denso Sales Ca (3900 Via Oro Ave.) SW: SOUTHCSTAIR, Quality MNG District, Guards Marking, Mangan Inc. (1500 West Carson St.)
2009	AP	Vacant land, Via Alcalde Avenue and three small red features near the southern property line	NW, W, N, NE, E, S, SE, SW: Similar to the 2005 AP
2009	CD	No listings	NW, N, NE, E, SE: No listings W: Michael Holmes, Intex Recreation Corp. (4001 Via Oro Ave.) S: Denso Sales California Inc. (3900 Via Oro Ave.), Microlog western Region (3960 Via Oro Ave.) SW: Rene Catalasan, Mangan Inc. (1500 West Carson St.)
2012	AP	Similar to the 2009 AP	NW, W, N, NE, E, S, SE, SW: Similar to the 2009 AP
2012	TM	No individual structures depicted and a light duty road trending north-south	NW: A light duty road trending east-west followed by no individual structures depicted and US Highway 710 W: A light duty road trending north-south (Via Oro Ave.) followed by no individual structures N, NE: A light duty road trending east-west followed by no individual structures E, SE: US Highway 710 (I-710) followed by no individual structures S: A light duty road trending east-west followed no individual structures SW: Intersection of two light duty roads trending east-west and north-south followed by no individual structures depicted
2014	CD	No listings	NW, N, NE, E, SE: No listings W: Intex Recreation Corp., Zee Toys Inc., Unitex Management Corp. (4001 Via Oro Ave.) S: Denso Sales California Inc. (3900 Via Oro Ave.) SW: Mangan Inc. (1500 West Carson St.)
2015	TM	Similar to the 2012 TM	NW, W, N, NE, E, SE, S, SW: Similar to the 2012 TM

Year	Source	Subject Property Use	Adjoining Property Use
2016	AP	Vacant land that appears to be graded, Via Alcalde Avenue, and one small red feature near the southern property line in addition to one possible concrete pad	NW, W, N, NE, E, S, SE, SW: Similar to the 2012 AP
2018	TM	Similar to the 2015 TM	NW, W, N, NE, E, SE, S, SW: Similar to the 2015 TM
2020	AP	Vacant land, Via Alcalde Avenue, and one possible concrete cutout near the southern property line	NW, W, N, NE, E, S, SE, SW: Similar to the 2016 AP
2023	Google Earth	Vacant land, Via Alcalde Avenue and one possible concrete cutout near the southern property line	NW: A road (Via Oro Avenue) followed by a commercial structure W: A road trending north-south (Via Oro Avenue) followed by several commercial structures N: A road trending east-west (West Via Plata Street) followed by two commercial structures NE: A road (Via Alcalde Avenue) followed by the Long Beach Freeway (I-710) and several multi-track railroads and train cars E: A road trending north-south (Via Alcalde Avenue) followed by vacant land and the I-710 and three commercial structures and several multi-track railroads S: A road trending east-west (West Carson Street) followed by two commercial structures and associated parking lots SE: I-710 SW: Intersection of West Carson St. and Via Oro Ave. followed by a commercial structure and associated parking lot

*__Bold__ listings indicate land uses with the potential to impact the subject property

Phase II ESA Soil Sampling

On May 9, 2023, Rincon advanced a total of 10 shallow soil borings (SB-1 through SB-10) via hand auger to a maximum depth of 2 feet below ground surface (bgs), as shown on Figure 4.7-1. Soil samples were collected from the 0.5-foot interval and 2-foot interval from each boring location. Soil samples were transferred into laboratory supplied containers, capped, labeled, and stored in a cooler chilled with ice and transported to a State of California certified analytical laboratory under standard chain of custody protocol. The results of the soil boring testing are provided below:

Arsenic

Arsenic was detected at concentrations above the construction worker Environmental Screening Level (ESL) 0.98 milligram per kilogram [mg/kg]) and commercial ESL (0.31 mg/kg) in the soil samples collected from the 0.5-foot and 2-foot intervals. However, arsenic concentrations in the soil samples collected at the site are consistent with background concentrations of arsenic in California soils.

Metals

Various metals were detected at concentrations above laboratory reporting limits in soil samples collected from SB-1, SB-2, and SB-5 through SB-10, however, concentrations are below applicable ESLs.

Organochlorine Pesticides(OCPs)

Dichlorodiphenyldichloroethane (4,4-DDD), dichlorodiphenyldichloroethylene (4,4-DDE), and dichlorodiphenyltrichloroethane (4,4-DDT) were detected at concentrations above laboratory reporting limits in soil samples collected from SB-1, SB-2, and SB-5 through SB-10, however, concentrations were below applicable ESLs. Various other OCPs were not detected above laboratory reporting limits. 4,4-DDE was detected in soil at SB-2 at the 2-foot interval (SB-2-2) at a concentration of 1.2 mg/kg, which exceeds the Total Threshold Limit Concentration (TTLC) of 1.0mg/kg; therefore, this sample was subject to Soluble Threshold Limit Concentration (STLC) analysis for waste characterization purposes. The STLC results indicate that soil in this location is not characterized as a California hazardous waste for 4,4-DDE.

Total Petroleum Hydrocarbons (TPH)

TPH-g, TPH-d, and TPH-o were not detected above the laboratory reporting limits in the soil samples (SB-3 and SB-4) collected near the approximate location of the former oil and gas well (Figure 4.7-1).

Phase II ESA Soil Vapor Sampling

On May 9, 2023, Rincon collected soil vapor samples (SV-1 through SV-7) at the project site as shown on Figure 4.7-1. Soil Vapor (SV) analytical results for Volatile Organic Compounds (VOCs), THP-g, and methane were not detected above laboratory reporting limits in the soil vapor samples.

4.7.2 Regulatory Setting

Federal, state, and local government laws define hazardous materials as substances that are toxic, flammable/ignitable, reactive, or corrosive. Extremely hazardous materials are substances that show high acute or chronic toxicity, carcinogenicity, bioaccumulative properties, persistence in the environment, or that are water reactive. The following are federal, state, and local regulations that may apply to the proposed project.

a. Federal Regulations

Resource Conservation and Recovery Act

At the federal level, the U.S. Environmental Protection Agency (U.S. EPA) has primary responsibility for enforcing laws and regulations that govern the use, storage, and disposal of hazardous materials and hazardous waste. The Resource Conservation and Recovery Act of 1976 (RCRA) defines when a hazardous substance is a hazardous waste based on a number of criteria and regulates hazardous wastes from generation of the waste through disposal. Title 49 of the Code of Federal Regulations (CFR 49) contains lists of more than 2,400 hazardous materials and regulates the transport of those materials.

Figure 4.7-1 Sampling Location Map

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 U.S.C Section 9601 et seq.), also known as Superfund, was established to hold multiple parties, including past and present owners, operators, transporters, and generators jointly, severally, and strictly liable for the remediation costs of a hazardously contaminated site.

Superfund Amendments and Reauthorization Act

The Superfund Amendments and Reauthorization Act (SARA) amends CERCLA and increases state involvement and requires Superfund actions to consider state environmental laws and regulations. SARA also established a regulatory program for Underground Storage Tanks (USTs) and the Emergency Planning and Community Right-to-Know Act.

Toxic Substances Control Act

The Toxic Substances Control Act (15 U.S.C. 2601 et seq.) regulates manufacturing, inventory, and disposition of industrial chemicals, including hazardous materials. It addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos-containing materials (ACMs), and lead-based paint (LBP).

Hazardous Materials Transportation Act

The transportation of hazardous materials is regulated by the Hazardous Materials Transportation Act (49 CFR § 101 et seq.), which is administered by the Office of Hazardous Materials Safety within the Pipeline and Hazardous Materials Administration (PHMA) of U.S. Department of Transportation (DOT). The Hazardous Materials Transportation Act governs the safe transportation of hazardous materials by all modes. The DOT regulations that govern the transportation of hazardous materials are applicable to any person who transports, ships, or causes to be transported or shipped hazardous materials, or who is involved in any way with the manufacture or testing of hazardous materials packaging or containers. The DOT regulations govern every aspect of the movement of hazardous materials including packaging, handling, labeling, marking, placarding, operational standards, and highway routing.

Occupational Health and Safety Administration Standard 1910.120

The Occupational Health and Safety Administration (OSHA) published Standard 1910.120, which in part requires that employers evaluate the potential health hazard that hazardous materials pose in the workplace and communicate information concerning hazards and appropriate protective measures to employees. Under OSHA Standard 1910.120, a health hazard is defined as "a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees."

b. State Regulations

California Code of Regulations, Title 22, Hazardous Waste Management

At the State level, under Title 22, Division 4.5 of the California Code of Regulations (CCR), the Department of Toxic Substance Control (DTSC) regulates hazardous waste in California primarily under the authority of the Federal RCRA and the California Health and Safety Code). The Hazardous

Waste Control Law (HWCL), under Title 22 CCR, establishes regulations that are similar to RCRA but more stringent in their application and empowers the DTSC to administer the state's hazardous waste program and implement the federal program in California. The DTSC is responsible for permitting, inspecting, ensuring compliance, and imposing corrective action programs to ensure that entities that generate, store, transport, treat, or dispose of potentially hazardous materials and waste comply with federal and state laws. The DTSC defines hazardous waste as waste with a chemical composition or other properties that make it capable of causing illness, death, or some other harm to humans and other life forms when mismanaged or released into the environment.

The DTSC shares responsibility for enforcement and implementation of hazardous waste control laws with the State Water Resources Control Board (SWRCB) and, at the local level, the Regional Water Quality Control Board (RWQCB), and city and county governments.

Proposition 65 – Safe Drinking Water and Toxic Enforcements Act

The California Safe Drinking Water and Toxic Enforcements Act of 1986 (Proposition 65), adopted in November 1986, established a prohibition on contaminating drinking water with chemicals known to cause cancer or reproductive harm, as outlined in the HSC, Division 20, Chapter 6.6 Sections 25249.5 - 25249.14. It also requires businesses to provide warnings before causing exposure to chemicals known to cause cancer or reproductive toxicity and requires a list of such chemicals to be published and updated annually.

The La Follette Bill

The La Follette Bill (Assembly Bill 3777) requires every business which handles specified amounts of acutely hazardous material, as defined in the bill, to file an acutely hazardous materials registration form with the local administering agency on or before September 1, 1987 and established guidelines for Hazardous Materials Management as outlined in the HSC, Division 20, Chapter 6.95, Article 2, Sections 25531-25540. It requires owners or operators of each business in the state, which at any time, handles any acutely hazardous material in quantities equal to or greater than 500 pounds, 55 gallons, or 200 cubic feet under standard temperature and pressure for compressed gas to register with an administering agency.

The California Environmental Protection Agency (CalEPA) is directly responsible for administrating the "Unified Program" that consolidates and coordinates the administrative requirements, permits, inspections, and enforcement activities for environmental and emergency management programs. The Unified Program is intended to provide relief to businesses complying with the overlapping and sometimes conflicting requirements of formerly independently managed programs and is implemented at the local government level by Certified Unified Program Agencies (CUPA). A local CUPA is responsible for administering/overseeing compliance with the following programs, as required by state and federal regulations:

- Hazardous Materials Release Response Plans and Inventories (Business Plans)
- California Accidental Release Prevention (CalARP) Program
- Underground Storage Tank (UST) Program
- Aboveground Petroleum Storage Act Requirements for Spill Prevention, Control and Countermeasure (SPCC) Plans
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs

- California Uniform Fire Code: Hazardous Material Management Plans and Hazardous Material Inventory Statements

Hazardous Waste Control Act

The Hazardous Waste Control Act (HSC, Section 25100 et seq.) is similar to the Federal RCRA in that it regulates the identification, generation, transportation, storage, and disposal of materials deemed hazardous by the State of California.

Cortese List Statute

The Cortese List Statute (Government Code 65962.5) requires the DTSC to compile and maintain lists of potentially contaminated sites located throughout the state and includes the Hazardous Waste and Substances Sites List (Cortese List) (DTSC 2023).

California Public Resources Code, Section 21151

California Public Resources Code Section 21151 requires the lead agency to consult with any school district with jurisdiction of a school within 0.25 mile of the project about potential impacts on the school if the project might reasonably be anticipated to create hazardous air emissions or handle an extremely hazardous substance or a mixture containing an extremely hazardous substance.

California Health and Safety Code, Title 22, Risk-Based Screening Levels and Cleanup Goals

Toxicity criteria for all human health risk assessments, human health risk-based screening levels, and remediation (cleanup) goals are established in the HSC Title 22, Chapter 50, Section 68400.5 and Title 22, Chapter 51, Sections 69020 – 69022. Section 68400.5 states that "for any release of hazardous waste or hazardous constituents, the human health risk assessment calculations, including, but not limited to, all cancer risk and non-cancer hazard screening levels and corrective action objectives, shall use the toxicity criteria specified in … Sections 69022, subdivision (a) and (b)." Pursuant to Section 69021, all human health risk assessments, human health risk-based screening levels, and remediation goals must use the Office of Environmental Health Hazard Assessment (OEHHA) risk factors, oral slope factors, chronic reference exposure levels, and blood-lead values. These values are listed in Appendix I of Section 69021. For any contaminant of potential concern (COPC) not listed in Appendix I, toxicity criteria provided in the U.S. EPA Integrated Risk Information System (IRIS) database shall be used. For COPCs not listed in Appendix I or the IRIS database, toxicity criteria from another source may be used, provided that it applies the best available science and is health-based.

The HSC Section 25395.95 (c), states that "on or before 60 days after the date an agency receives a response plan, the agency shall make a written determination that proper completion of the response plan constitutes appropriate care for purposes of subdivision (a) of Section 25395.67." The statute defines appropriate care in HSC Section 25395.67 as either of the following:

(a) The performance of a response action, with respect to hazardous materials found at a site, for which the agency makes the determination specified in paragraph (1) of subdivision (c) of Section 25395.96 and that meets all of the following conditions:

    (1) The response action is determined by an agency to be necessary to prevent an unreasonable risk to human health and safety or the environment, as defined in Section 25395.90.

(2) The response action is performed in accordance with a response plan approved by the agency pursuant to Article 6 (commencing with Section 25395.90).

(3) The approved response plan includes a provision of oversight and approval of the completed response action by the agency pursuant to Article 6 (commencing with Section 25395.90); or

(b) A determination that no further action is required pursuant to Section 25395.95.

c. Local Regulations

South Coast Air Quality Management District

The California Air Resources Board was created by the state legislature to facilitate compliance with the Federal Clean Air Act and to implement the state air quality programs in the State. The local agency that implements these acts is the Air Quality Management District, in Long Beach the local Air District is the South Coast Air Quality Management District (SCAQMD).

- SCAQMD Rule 402 prohibits discharges from any source such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or 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.
- SCAQMD Rule 403 reduces the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.
- SCAQMD Rule 1166 sets requirements to control the emission of volatile organic compounds (VOC) from excavating, grading, handling and treating VOC-contaminated soil as a result of leakage from storage or transfer operations, accidental spillage, or other deposition.
- SCAQMD Rule 1466 sets forth air monitoring requirements for toxic air contaminants during earth moving activities at sites designated as cleanup sites by a regulatory agency (such as the Los Angeles Regional Water Quality Control Board). The purpose of the rule is to minimize off-site fugitive dust emissions containing toxic air contaminants.
- SCAQMD Rule 1403 specifies work practice requirements to limit asbestos emissions from building demolition and renovation activities.

Long Beach Storm Water Management Plan

The City of Long Beach Stormwater and Environmental Compliance Division is responsible for monitoring the City's stormwater quality and maintaining the storm drain system. The Division oversees compliance with the Federal Clean Water Act and the California Waterboard's State Porter-Cologne Water Quality Control Act. These acts established pollution control programs and water quality criteria recommendations. The Plan include requirements for construction activities. If construction activity will disturb one acres or more coverage must be acquired under the General Construction Activity Permit. The proposed project must prepare a site specific Storm Water Pollution and Prevention Program (SWPPP) to meet the requirements under the CWA to prevent contaminated stormwater runoff from construction sites from entering rivers, lakes, and coastal waters (EPA 2007).

Long Beach for Municipal Separate Storm Sewer System (MS4) Permit

An MS4 is a conveyance system owned and operated by a city or other government entity that collects and directs stormwater. The MS4 permit authorizes the city or other government entity to discharge stormwater to water of the United States, such as the Pacific Ocean. The City of Long Beach is covered under the Long Beach MS4 Permit: Waste Discharge Requirements for Municipal Separate Storm Sewer System Discharges from the City of Long Beach; Order No. R4-2014-0024 (SWQCB 2014). The MS4 permits require the dischargers to develop and implement a Storm Water Management Plan/Program with the goal of reducing the discharge of pollutants.

Long Beach Low Impact Development Manual

The City adopted Low Impact Development (LID) regulations (LBMC Chapter 18.74) for the purpose of encouraging the beneficial use of rainwater and urban runoff; reducing stormwater/urban runoff while improving water quality; reducing off-site runoff and providing increased groundwater recharge; reducing erosion and hydrologic impacts downstream; and enhancing the recreational and aesthetic values of communities (Long Beach 2013).

City of Long Beach/Signal Hill CUPA

The Long Beach/Signal Hill CUPA has been in effect since July 1, 1997. The CUPA combines both Fire Department and Health Department programs related to hazardous materials management into one Agency function in the Cities of Long Beach and Signal Hill. The City of Long Beach CUPA Program covers the following programs:

- Hazardous Waste Generator Inspection Program (Health)
- Hazardous Materials Inspection/Business Plan Program (Fire)
- CalARP Program (Health)
- Aboveground Storage Tank (AST) Spill Prevention (Health/Fire)
- UST/AST Program: 1) Tank monitoring/Installs and Removals (Fire); and, 2) Site Mitigation (Health): Review of Soil Sampling Reports related to UST, AST, Clarifier & Hydraulic Lift removals and upgrades; Site Characterization (Phase II); Site Remediation (Phase III)
- Other soil-only projects non-UST related

Long Beach Municipal Code Title 8, Health and Safety

- **Chapter 8.86: Hazardous Materials Release Response Plans and Inventory**. This chapter designates the Long Beach/Signal Hill CUPA as the local agency responsible for enforcing regulations regarding Hazardous Materials Release Response Plans within the City.
- **Chapter 8.87: Hazardous Waste Control**. This chapter designates the Long Beach/Signal Hill CUPA as the local agency responsible for enforcing regulations regarding hazardous waste control within the City.
- **Chapter 8.88: Hazardous Materials Cleanup**. This chapter reinforces the requirements for site characterization and remediation for hazardous materials spills and requires characterization and remediation permits be acquired from the Health Officer of the City of Long Beach and a deputy Health Officer or designee. The Health Officer shall determine compliance with the hazardous waste control laws by responsible parties.

4.7.3 Impact Analysis

a. Methodology Significance Thresholds

CEQA identifies the following criteria, as established in Appendix G of the *CEQA Guidelines*, to determine if a project could potentially have a significant adverse effect related to hazards and hazardous materials.

A project would have a significant adverse effect related to hazards and hazardous materials if it would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
2. 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
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school
4. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment
5. For a project located in 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, result in a safety hazard or excessive noise for people residing or working in the project area
6. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan
7. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires

Of the above impact thresholds, all except 3 and 4 were determined to have no impact or a less than significant impact in the Initial Study (Appendix A). Impacts 3 and 4 are addressed in the impact analysis section below.

b. Project Impacts and Mitigation Measures

Threshold 3:	Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

Impact HAZ-1 BASED ON THE FINDINGS OF THE PHASE II ENVIRONMENTAL SITE ASSESSMENT, THE PROPOSED PROJECT WOULD NOT EMIT HAZARDOUS EMISSIONS OR HANDLE HAZARDOUS OR ACUTELY HAZARDOUS MATERIALS, SUBSTANCES, OR WASTE WITHIN 0.25 MILE OF AN EXISTING OR PROPOSED SCHOOL.

The proposed project would involve development of a new 560,039 square foot (sf) warehouse and distribution building on the currently vacant project site. The schools closest to the project site are Rancho Dominguez Preparatory School, which is located approximately 550 feet west of the project site; and Dominguez Elementary School, which is located approximately 640 feet northwest of the project site. The Initial Study identified subsurface soil contamination and hazardous emissions from

on- and off-site project-related vehicles as potential sources of hazardous emissions related to the project, which would occur within one-quarter mile of a school.

Adjacent properties of concern were identified in the Phase I Environmental Site Assessment (ESA) prepared for the site by Rincon, on March 4, 2023. In June 2023 Rincon prepared a Phase II ESA and prepared a soil and soil vapor assessment to evaluate the site for potential impacts from former land uses. The Phase II ESA found concentrations of metals were detected but these concentrations did not exceed applicable commercial/industrial or construction worker ESLs (Appendix L). Also, the Phase II ESA found that on-site soil does not appear to be impacted from pollutants from former agricultural use, or aerially deposited lead (ADL) (Appendix L). Therefore, impacts associated with soil disturbances on site would have a less than significant impact to an existing or proposed school within 0.25 miles of the project site.

As discussed in the Phase I ESA, the project site itself does contain one abandoned dry oil well hole (Appendix K). As described above under the Regulatory Framework section, the City of Long Beach has established specific requirements for the abandonment of oil and gas wells. The existing oil and gas well abandonment will be overseen by the City of Long Beach Building and Safety Bureau, notification of the well abandonment may also be required to be reported to the California Department of Conservation Geologic Energy Management Division. Therefore, with compliance with City policy, potential impacts associated with the abandonment of the on-site well will be less than significant.

In 2023, Rincon prepared a Construction Health Risk Assessment (HRA)[2] and an Operational HRA for the proposed project. The assessment focused on evaluating emissions from heavy-duty equipment used during grading and building construction activities, as well as emissions from on- and off-site project-related vehicles during operation. A more detailed discussion of the findings and analysis of the HRAs related to air quality and emissions from the proposed project are discussed in detail in Section 4.1, *Air Quality*. As discussed in these reports and the *Air Quality* section, impacts related to hazardous emissions from on- and off-site project-related vehicles within one-quarter mile radius of the project site would be less than significant.

Thus impacts related to hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school would be less than significant.

Mitigation Measures

There would be no impact, so no mitigation is required.

[2] A human health risk assessment is the process to estimate the nature and probability of adverse health effects in humans who may be exposed to chemicals in contaminated environmental media, now or in the future.

Threshold 4:	Would the project be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Impact HAZ-2 THE PROPOSED PROJECT IS NOT INCLUDED ON A LIST OF SITES COMPILED PURSUANT TO GOVERNMENT CODE SECTION 65962.5 AND THEREFORE THE PROPOSED PROJECT WOULD NOT CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR THE ENVIRONMENT BY BEING LOCATED ON A HAZARDOUS MATERIALS SITE. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

A preliminary soil analysis conducted by Applied Geosciences, Inc. in May 1988 (Appendix I) determined that residual concentrations of chlorinated pesticides Dichlorodiphenyltrichloroethane (DDT) and dichlorodiphenyldichloroethylene (DDE) were present in the surficial soils at the site but that soil mitigation would not be required since the reported concentrations were below the Total Threshold limit Concentration (TTLC) for compounds reported. The report noted that "there appears to be a moderate potential for environmental contamination due to a former oil/gas well on the site." (Leroy 1988). Leroy indicated that an oil/gas was present at the site in 1944 and was abandoned the same year without producing. Therefore, Leroy indicated that the "likelihood of extensive contamination" is remote, but that that the Department of Oil and Gas may require re-abandonment of the on-site well if buildings are to be placed over the well.

In March 2023 prepared a Phase I ESA for the project site. The Phase I ESA reviewed information obtained from online sources (e.g., SWRCB GeoTracker database, Department of Toxic Substances Control [DTSC] EnviroStor database, local fire department) and/or files requested from the applicable regulatory agency. The Phase I ESA concluded that the project site is not listed on any regulatory databases, but also identified potential impacts from former land uses on the project site and adjacent properties of concern (Appendix K).

In June 2023 Rincon prepared a Phase II ESA to evaluate potential impacts from former land uses on the project site and adjacent properties of concern identified in the Phase I ESA. A soil and vapor assessment were conducted and the results were reported in the Phase II ESA. Dichlorodiphenyldichloroethane (4,4-DDD), dichlorodiphenyldichloroethylene (4,4-DDE), and dichlorodiphenyltrichloroethane (4,4-DDT) were detected at concentrations above laboratory reporting limits in soil samples, but concentrations were below applicable ESLs. Various other OCPs were not detected above laboratory reporting limits. 4,4-DDE was detected in soil at SB-2 at the 2-foot interval (SB-2-2) at a concentration of 1.2 mg/kg, which exceeds the Total Threshold Limit Concentration (TTLC) of 1.0mg/kg; therefore, this sample was subject to Soluble Threshold Limit Concentration (STLC) analysis for waste characterization purposes. The STLC results indicate that soil in this location is not characterized as a California hazardous waste for 4,4-DDE (Appendix L). Furthermore, the Phase II ESA determined that TPH-g, TPH-d, and TPH-o were not detected above the laboratory reporting limits.

As described above, conditions on the project site would not create a create a significant hazard to the public or the environment by being located on a hazardous materials site, and this impact would be less than significant.

Mitigation Measures

There would be no impact, so no mitigation is required.

4.7.4 Cumulative Impacts

As analyzed in this section of the EIR, implementation of the proposed project would not result in significant impacts related to human exposure to hazardous materials, and the projects discussed in Chapter 3.0, *Environmental Setting*, Section 3.3, *Cumulative Development* of this EIR do not include any nearby projects that would have the potential to produce significant hazards or hazardous materials impacts that would directly interact with those of the proposed project in a way that would produce a cumulatively significant impact. Hazard evaluations for other cumulative projects would need to be completed on a case-by-case basis. Compliance with applicable regulations and implementation of appropriate remedial action on contaminated sites would reduce cumulative impacts to a less than significant level.

4.8 Land Use and Planning

This section describes the existing land uses on the project site and in its vicinity and evaluates the compatibility of the proposed project with surrounding land uses and relevant land use policy and planning documents. Information presented in this section is based on information provided in the following documents: the City of Long Beach's (City's) existing General Plan (as amended), the City's Zoning Code (Title 21) and associated Zoning Map, the Southern California Association of Government's (SCAG) 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and SCAG's 2008 Regional Comprehensive Plan (2008 RCP), the 2022 Los Angeles River Master Plan prepared by Los Angeles County Public Works, the Lower Los Angeles River Revitalization Plan (2017), and the City of Long Beach's 2007 Long Beach RiverLink Plan.

4.8.1 Setting

a. Citywide Land Use Patterns

Long Beach is on the coastal plain of the Los Angeles Basin, in the southeastern portion of Los Angeles County. The entire incorporated area of the city is approximately 53 square miles. The city shares its boundaries with eight other incorporated cities in Los Angeles County: Signal Hill (which it completely surrounds), Los Angeles, Carson, Compton, Paramount, Bellflower, Lakewood, and Hawaiian Gardens; as well as several unincorporated "islands" of Los Angeles County, the largest of which is known as Rancho Dominguez. The city also shares its boundary on the southeast with the following incorporated cities located in Orange County: Cypress, Los Alamitos, and Seal Beach; and an unincorporated area of Orange County between Los Alamitos and Seal Beach known as Rossmoor. Land subdivision began in the areas that were later to become Long Beach in the late 19th century, the City incorporated in 1908, and it continued to develop through various cycles of booms, busts, and steady development throughout the 20th century. Long Beach is now a mature, highly urbanized community, with approximately 99 percent of its land area developed (City of Long Beach, 2019). Land uses in the city encompass a wide variety of urban uses including residential neighborhoods; civic and tourist-oriented uses in the city's downtown; commercial developments in the downtown and in shopping centers and commercial strips throughout the city; industrial areas such as the Port of Long Beach; and public and institutional uses such as parks, schools, and universities such as Cal State Long Beach.

b. Site and Surrounding Land Uses

Most of the project site is an open field containing grasses and dirt, but there are also landscaping trees around the site boundaries. The site also encompasses parts of Via Alcalde Avenue. The project site contains a former oil/gas well that was abandoned and plugged in 1944. The project site was also historically used for agriculture and, more recently, for flying remote control helicopters. The project site is bounded by West Carson Street on the south, I-710 to the east, Via Oro Avenue to the west and Via Plata Street to the north. Surrounding land uses consist of commercial and industrial buildings to the north, south, and west. The Rancho Dominguez Preparatory School (a Los Angeles Unified School District [LAUSD] facility) is located approximately 550 feet west of the project site and Dominguez Elementary School (also an LAUSD facility) is located approximately 780 feet west of the project site, both accessible by Santa Fe Avenue. I-710 is east of the project site (see Figure 2-6 in Chapter 2, *Project Description*). Just east of I-710 is the Metro A Line maintenance yard.

4.8.2 Regulatory Setting

a. Regional

The only agencies with direct roles in establishing and implementing land use policy and practice in Long Beach are the Southern California Association of Governments (SCAG) and the City of Long Beach.

Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy

SCAG's 2020 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) is the companion long-range transportation and sustainability plan to the RCP that looks ahead to 2045 and provides a vision for the future of the regional multi-modal transportation system. The RTP/SCS is a long-range visioning plan that balances the region's projected future mobility and housing needs with economic, environmental, and public health goals. The RTP/SCS charts a course for closely integrating land use and transportation so that the region can accommodate projected growth. It outlines more than $638 billion in transportation system investments through 2045. In June 2020, SCAG received approval of the transportation conformity determination for the 2020-2045 RTP/SCS (Connect SoCal) from the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA).

AB 32, California's Global Warming Solutions Act of 2006, gave the California Air Resources Board (CARB) authority over sources of greenhouse gas emissions, including cars and light trucks. SB 375 was intended to help California achieve GHG reduction goals for cars and light trucks by changing land use patterns in tandem with regional and local transportation planning to generally reduce vehicle miles travelled (VMT) which, in turn, reduces GHG emissions. SB 375 required that the RTP include a Sustainable Communities Strategy (SCS) that demonstrates how the SCAG Region will meet its greenhouse gas (GHG) reduction CARB target. Therefore, there is a direct link between a local general plan being consistent with SCAG's 2020 RTP/SCS and GHG emission reduction.

The SCAG RTP/SCS vision for 2045 includes more compact development and seamless public transit options, including expanded bus and rail service. In this vision, people live closer to work, school, shopping, and other destinations. Neighborhoods are more walkable and safer for bicyclists. Southern California's vast transportation network is preserved and maintained in a state of good repair, so that public tax dollars are not expended on costly repairs and extensive rehabilitation. Housing across the region is sufficient and affordable and meets forecasted demands of a growing population, largely due to natural increases.

Los Angeles River Master Plan

The June 2022 Los Angeles River Master Plan, prepared and implemented by Los Angeles County Public Works, provides for the optimization and enhancement of aesthetic, recreational, flood control, and environmental values by creating a community resource, enriching the quality of life for residents, and recognizing the river's primary purpose for flood control. The Los Angeles River Master Plan's goals are as follows:

- Reduce flood risk and improve resiliency
- Provide equitable, inclusive, and safe parks, open space, and trails
- Support healthy connected ecosystems
- Enhance opportunities for equitable access to the river corridor

- Embrace and enhance opportunities for arts and culture
- Address potential adverse impacts to housing affordability and people experiencing homelessness
- Foster opportunities for continued community engagement, development, and education
- Improve local water supply reliability
- Promote healthy, safe, clean water

The Los Angeles River Master Plan includes 78 significant project opportunity sites to create multi-benefit project along the Los Angeles River. The project site is not within a designated opportunity site. The nearest designated opportunity site is W 47th St/Rancho Los Cerritos which is located to the east of the project site, between I-710 and the Los Angeles River. The Los Angeles River Master Plan does not specify the proposed improvements or development on the W 47th St/Rancho Los Cerritos opportunity site.

The Los Angeles River Master Plan is a County of Los Angeles document, and the City of Long Beach has not adopted the Master Plan, though it was a member of the Advisory and Steering Committees which coordinated with County of Los Angeles in the preparation of the Master Plan.

Lower Los Angeles River Revitalization Plan

In 2015, California State Assembly Bill 530 (AB 530) was passed to revive the river through the development of a watershed-based, equitable, community-driven plan. The language of AB 530 called for Secretary John Laird of the Natural Resources Agency, in consultation with the Los Angeles County Board of Supervisors, to appoint members to participate in the Lower Los Angeles River Working Group for the development of the Lower Los Angeles River Revitalization Plan (the Revitalization Plan). The Working Group, chaired by the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, included elected officials and representatives from local cities, regional agencies, and community advocates who came together to create the Revitalization Plan.

The Revitalization Plan encompasses areas within one mile on each side of the 19-mile section of the river from the City of Vernon to its outlet in the City of Long Beach, which includes unincorporated County communities and 14 Southeast Los Angeles County cities. The Revitalization Plan describes opportunities for improving the environment and residents' quality of life along the river. The Revitalization Plan also ensures the voices of the people are heard now and in the future as the river is reimagined and revitalized into an integral part of a healthy, equitable, and sustainable community. The Revitalization Plan includes 155 Opportunity Areas that can be developed into revitalization projects aligned with the guiding principles of the Revitalization Plan. The project site is Opportunity Area 99. The Revitalization Plan identifies Opportunity Area 99 as a site for improvements but does not state any specific actions proposed for the Opportunity Area. The project site is private property, and the Plan does not have jurisdiction over the project site and cannot enforce the Opportunity Area's potential improvements. Likewise, the zoning and general plan designations of the site also reflect that the site is held in private ownership and intended for private development.

A draft of the Revitalization Plan was released for public review in 2017 and was incorporated into the Los Angeles River Master Plan for the entire 51-mile Los Angeles River. The Los Angeles River Master Plan was adopted in 2022. As stated above, the Los Angeles River Master Plan is a County of Los Angeles document, and the City of Long Beach has not adopted the Master Plan, though it was a member of the Advisory and Steering Committees which coordinated with the County of Los Angeles in the preparation of the Master Plan.

b. Local

City of Long Beach

The City of Long Beach regulates land use within the incorporated City boundaries through its General Plan and Municipal Code. These regulatory documents establish policies that apply citywide and to specific subareas within the city. The project site is in the "I" (Industrial) Place Type of the City's newly adopted General Plan Land Use Element (see Figure 4.8-1). The General Plan Land Use Element describes the Industrial Place Type as follows:

> *The Industrial Place Type includes all industrial activities: light industrial research parks, warehousing or storage activities, industrial manufacturing and machining operations.*

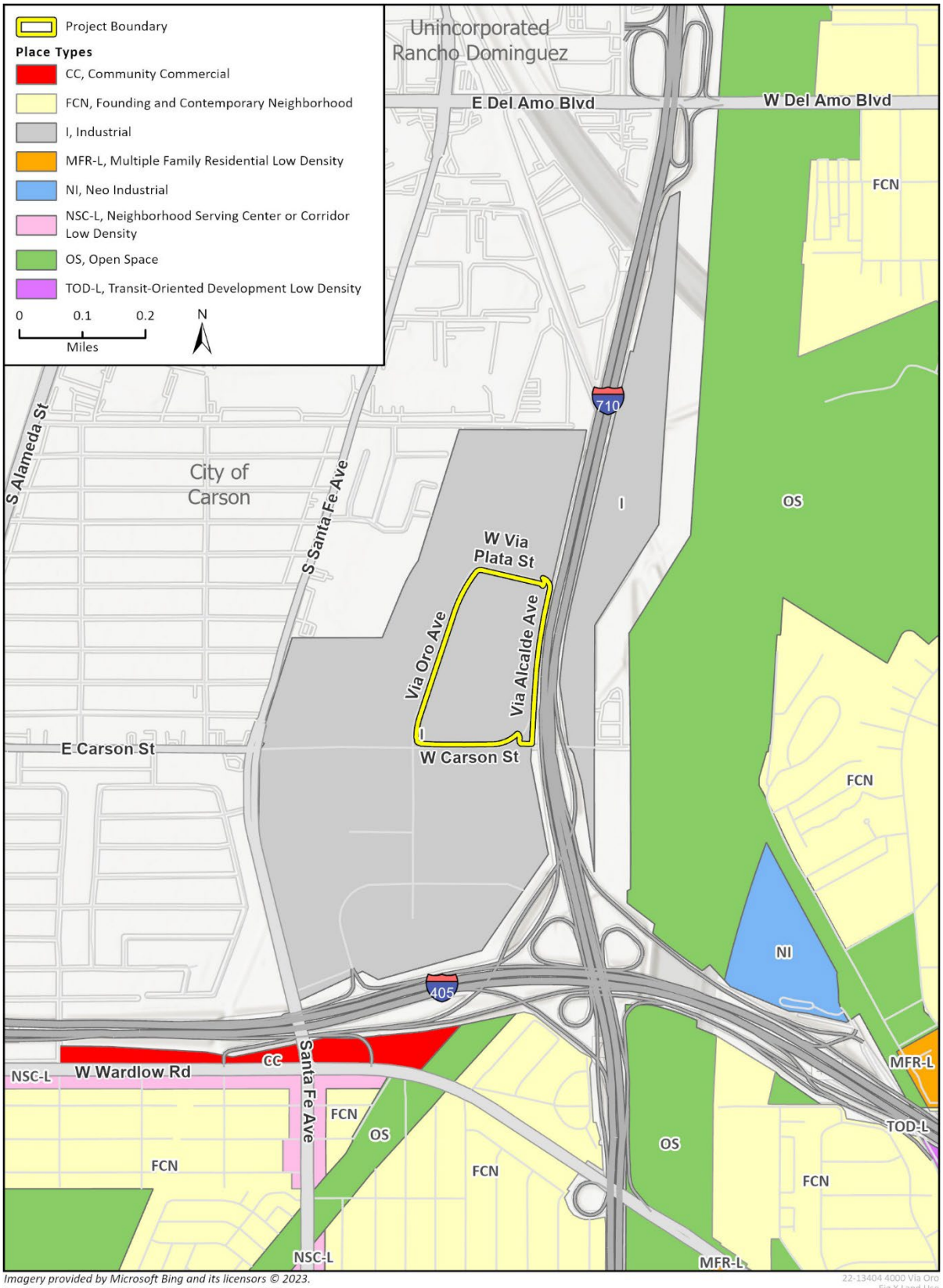
The project site is located on "Ownership Parcel B" in Subarea I of the West Long Beach Business Parks Planned Development District (PD-26), as shown in Figure 4.8-2. A Planned Development District is established under Chapter 21.37 of the Zoning Regulations to allow flexible development plans to be prepared for areas of the City which may benefit from the formal recognition of unique or special land uses and the establishment of special design policies and standards not otherwise possible under conventional zoning district regulations. Purposes of the planned development district include permitting a compatible mix of land uses, allowing for planned commercial areas and business parks, and encouraging a variety of housing styles and densities. Uses permitted in PD-26 include manufacturing of various products, industrial activities, service and repair, storage, transportation, communications, utilities and public services, retail, administrative or professional offices, and a variety of similar services typically found in a business center. The project site is currently vacant and undeveloped.

Long Beach General Plan Land Use Element

The Land Use Element of the Long Beach General Plan directs the long-term physical development of the city by guiding use, form, and the characteristics of improvements on the land. It designates the location, types, and intensity of housing, businesses, industries, open spaces, public buildings, airports, ports, marinas, and other uses in Long Beach. It also focuses on the city's urban form and character by addressing the height and massing of buildings, the relationship between building façades and public sidewalks and streets, and character features such as community gathering places or pedestrian amenities. In essence, the element sets out the ultimate physical pattern of development and how buildings are used in Long Beach. The Land Use Element responds to many conditions the community can anticipate including:

- Accommodating a population expected to reach 484,485 by 2040, a 3.2 percent increase from a population of 466,255 in 2012
- Creating opportunity for 28,524 housing units both to accommodate population growth and to address overcrowding of existing Long Beach households
- Continuing municipal finance challenges and the need to allocate limited resources to provide routine community services and infrastructure maintenance
- Sustaining a diverse and competitive local economy
- Increasing interest in sustainable development practices and approaches to environmental protection
- Retaining the character and quality of residential neighborhoods

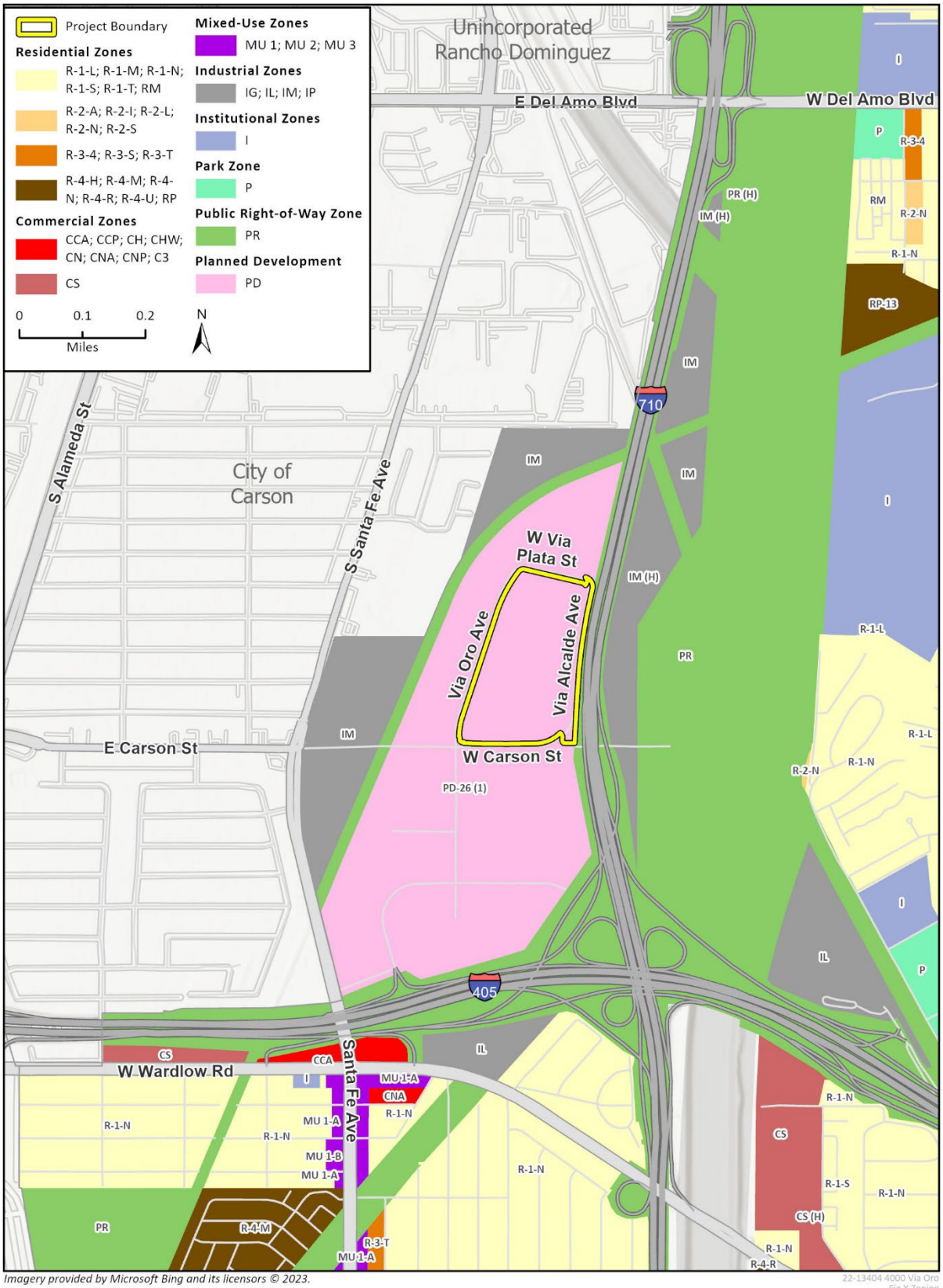
Figure 4.8-1 City of Long Beach General Plan Land Use Designations



Imagery provided by Microsoft Bing and its licensors © 2023.
Land Use data provided by the City of Long Beach, 2023.

22-13404 4000 Via Oro
Fig X Land Use

Figure 4.8-2 City of Long Beach Zoning Designations



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Zoning data provided by the City of Long Beach, 2023.

22-13404 4000 Via Oro
Fig X Zoning

- Providing many options for housing, mobility and lifestyle choices
- Using urban planning approaches to improve the health of residents
- Responding to changing technology

West Long Beach Business Parks Planned Development Plan

The West Long Beach Business Parks Planned Development Plan established the West Long Beach Business Parks Planned Development District (PD-26) in 1989 with the intent to provide a framework to guide substantial private development into a high-intensity business center. Such development is desirable to provide jobs and to advance the city's economic development in the areas of technology, research, and development, as identified in the City's Strategic Plan.

City of Long Beach Park Acquisition Feasibility Report

The City of Long Beach City Manager's Office developed the City of Long Beach Park Acquisition Feasibility Report (Feasibility Report) in April 2021 (Appendix P). The Feasibility Report was prepared to study the feasibility of acquiring land along the Los Angeles River to develop for parks and recreation use. The Feasibility Report determined that the project site is not one of the nine opportunity sites to be further considered as potential open space acquisition sites. Thus, the project site was determined to not be a likely site for acquisition.

Long Beach RiverLink Plan

The Long Beach RiverLink Plan (RiverLink) is the City of Long Beach's master plan for the City's 10 miles of the Los Angeles River. Adopted in 2007, RiverLink plans more than 220 acres of new parks along the lower river. The RiverLink plan is an aspirational document developed as a Master's Degree project by California State Polytechnic University, Pomona students, and adopted by the Long Beach Department of Parks, Recreation, and Marine after additional refinement by volunteer design professionals. The RiverLink Plan is not part of the General Plan or Zoning Regulations and is not regulatory in nature or binding upon local land use planning and regulation. The main goals of RiverLink are:

- To identify areas for the acquisition of additional open space. The City is seeking to provide eight (8.0) acres of recreational open space for each 1,000 residents of the city. To achieve this, approximately 1,100 acres needs to be added to the current inventory of 2,855 acres
- To identify ways to connect city residents to the Los Angeles River. This is primarily oriented toward improving physical access to the bicycle and pedestrian trails on the levees and open spaces along the river
- To identify locations along the Los Angeles River where the native habitats could be restored. This is to preserve the scarce remnants of Long Beach's biological heritage, and to allow that heritage to recover to the point that its existence will no longer be threatened. Furthermore, this is to provide places of contact where residents can understand and value that heritage
- To improve the aesthetics of the Los Angeles River and the city

The Riverlink Plan includes destinations of potential improvements to sites near the Los Angeles River. These destinations are strictly conceptual and are not planned development. The project site is not included in any designated destinations, gateways, pathways, or connections. The nearest destination to the project site is Destination 4: Dominguez Gap, which is east of the project site, between I-710 and the Los Angeles River.

4.8.3 Impact Analysis

a. Methodology and Significance Thresholds

According to CEQA Guidelines Appendix G, impacts related to land use and planning would be potentially significant if implementation of the proposed project would do either of the following:

1. Physically divide an established community
2. 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

As discussed in the Initial Study (Appendix A), the proposed project would have no impact related to division of an established community and as such, this issue is not discussed further in this EIR. This section therefore focuses on assessing the proposed project's consistency with applicable land use policies and regulations.

b. Project Impacts and Mitigation Measures

Threshold:	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?

Impact LU-1 THE PROPOSED PROJECT IS CONSISTENT WITH SCAG'S RTP/SCS, THE CITY OF LONG BEACH GENERAL PLAN LAND USE ELEMENT, THE WEST LONG BEACH BUSINESS PARKS PLANNED DEVELOPMENT ZONE, THE LOS ANGELES RIVER MASTER PLAN, LONG BEACH RIVERLINK PLAN, AND THE LOWER LOS ANGELES RIVER REVITALIZATION PLAN[1]. THEREFORE, THE PROPOSED PROJECT WOULD NOT CONFLICT WITH APPLICABLE LAND USE PLANS, POLICIES, OR REGULATIONS ADOPTED FOR THE PURPOSE OF AVOIDING OR MITIGATING AN ENVIRONMENTAL EFFECT. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The proposed project includes the construction of a new 60-foot-tall, 517,437-square foot combination warehouse and distribution center with accessory offices. Goods would be imported via the nearby Port of Los Angeles and Port of Long Beach, delivered to the site, sorted and stored on-site, and then distributed nationally from the project site. This use is consistent with the current land use designation of in the "I" (Industrial) Place Type in the City's General Plan Land Use Element. The I Place Type includes all industrial activities, including warehousing and storage activities, included in the proposed project.

Table 4.8-1 and Table 4.8-2 contain a discussion of the proposed project's potential consistency with applicable goals and policies of the Long Beach General Plan and SCAG's 2020 RTP/SCS. Consistent with the scope and purpose of this EIR, the discussion focuses on goals and policies that relate to avoiding or mitigating environmental impacts, and an assessment of whether any inconsistency with these goals and policies creates a significant physical impact on the environment. The ultimate determination of whether the proposed project is consistent with the Long Beach General Plan and SCAG's RTP/SCS lies with the decision-making bodies (Planning Commission and City Council). Only goals and policies relevant and applicable to the proposed project are included. Goals and policies that are redundant between elements of the General Plan are omitted, as well as goals and policies

[1] While the proposed project is consistent with the Los Angeles River Master Plan, the Long Beach RiverLink Plan, and the Lower Los Angeles River Revitalization Plan, these plans are not part of the General Plan or Zoning Regulations of the City of Long Beach and are not regulatory in nature or binding upon local land use planning and regulation.

that call for City actions that are independent of review and approval or denial of the proposed project.

Table 4.8-1 City of Long Beach General Plan Policy Consistency

General Plan Goal or Policy	Discussion
Land Use Element	
Goal 2: Stimulate Continuous Economic Development and Job Growth	Consistent: The proposed project would stimulate the local economy by adding jobs and developing a currently vacant property. The proposed project would also make the distribution of goods throughout the region more efficient-further stimulating the economy.
Goal 3: Accommodate Strategic Growth and Change.	Consistent: The proposed project would provide economic growth to the region by creating jobs and developing a currently vacant property.
Goal 6: Ensure a Fair and Equitable Land Use Plan.	Consistent: The project site is in an industrial area and, as discussed in Section 4.9, *Noise,* construction noise and operational stationary noise would not exceed applicable City standards and the proposed project's addition to traffic would not result in a noticeable off-site traffic noise increase. As discussed in Section 4.7, *Hazards and Hazardous Materials*, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. As discussed in Section 4.1, *Air Quality*, the proposed project's impact related to exposure of sensitive receptors to substantial pollutant concentrations would be less than significant. Lastly, the proposed project would involve construction of warehouse and office uses that would be consistent with other uses already in the plan area. For all these reasons, the proposed project would be consistent with the goals of a fair and equitable land use plan.
Air Quality Element	
Goal 2: A diverse and efficient ground transportation system that minimizes air pollutant emissions	Consistent: The proposed project would make ground transportation more efficient through the storage and distribution of goods from Ports of Long Beach and Los Angeles. Goods would be transported in a more efficient manner which would reduce emissions.
Goal 5: A pattern of land uses that can be efficiently served by a diversified transportation system and that directly and indirectly minimizes air pollutants	Consistent: The proposed project would diversify the local transportation system by streamlining the applicant's current system and providing a more efficient system of transporting goods from the ports directly to the applicant's warehousing and office facilities, which would help reduce air pollution.
Goal 6: Minimize particulate emissions from the construction and operation of roads and buildings, from mobile sources, and from the transportation handling and storage of materials	Consistent: Proposed project construction would generate temporary air pollutant emissions. However, as discussed in Section 4.2, *Air Quality*, particulate emissions would be below applicable thresholds. The proposed project would adhere to SCAQMD Rule 403 regarding control of fugitive dust during construction. In addition, operation of the proposed project, including mobile and area source emissions, would not exceed SCAQMD construction particulate matter thresholds or Local Significance Thresholds (LSTs) for particulate matter.

General Plan Goal or Policy	Discussion
Goal 7: Reduce emissions through reduced energy consumption.	Consistent: The proposed project would comply with the energy conservation requirements of the California Green Buildings Standards Code. As discussed in Section 4.4, *Energy,* the proposed project would incorporate design features required by the 2022 Title 24 standards.
Mobility Element	
Strategy 5: Reduce the environmental impacts of the transportation system.	Consistent: The proposed project would make ground transportation more efficient through the storage and distribution of goods from Ports of Long Beach and Los Angeles in a more efficient manner, which would reduce emissions.
Strategy 6: Manage the supply of parking	Consistent: As described in Chapter 2, *Project Description* of this EIR, the proposed project would include sufficient employee and visitor parking and would comply with all City parking regulations.
Strategy 12: Be a leading collaborator on transportation issues related to the regional mobility of goods.	Consistent: The proposed project would improve the transportation and mobility of goods regionally by making the storage and distribution of goods more efficient.
Strategy 14: Reduce the air quality impacts of freight transportation and Port-related traffic.	Consistent: The proposed project would reduce the impacts of freight transportation and port related traffic by transporting goods in a more efficient manner, which would reduce the air quality impacts of freight transportation and Port-related traffic.
Strategy 19: Promote well-maintained water, wastewater, and stormwater infrastructure systems that serve the demands of existing and future residents and businesses while mitigating environmental impacts	Consistent: As discussed in Section 4.13 *Utilities and Service Systems,* the proposed project would include connections to the existing water and wastewater system but would not create substantial water demand (due to implementation of Long Beach Municipal Code requirements) such that new or expanded water or wastewater facilities would be needed. Additionally, as discussed in Section 4.13 *Utilities and Service Systems,* the proposed project would not require any new or expanded stormwater facilities beyond what would be installed pursuant to the regulatory requirements in Chapter 8.96 of the Long Beach Municipal Code.
Conservation Element	
Wildlife Management Goal 1: To promote measures and plans which protect and preserve distinctive types of vegetation including mammals, birds, marine organisms, and especially endangered species.	Consistent: As discussed in Section 4.2, *Biological Resources,* the project site has low habitat value and does not contain suitable habitat for any special-status plant or wildlife species. Special-status plant species are not expected to occur based on the project site's location and clear lack of suitable native habitat (e.g., coastal scrub, marshes, elevational ranges), and historic and current disturbances. Special-status wildlife species are not expected to occur based on known distribution, habitat requirements, and existing site conditions. Implementation of Mitigation Measure BIO-1 (*Pre-construction Nesting Bird Surveys*) would reduce potential impacts to nesting birds and raptors to a less than significant level.

General Plan Goal or Policy	Discussion
Vegetation Management Goal 1: To provide controls for land supporting distinctive native vegetation, wildlife species which can be used for ecologic, scientific, and educational purposes.	Consistent: The project site has low habitat value and does not contain suitable habitat for any special-status plant or wildlife species. While the project site does provide shelter and facilitate movement of urban adapted wildlife on a smaller scale, due to the existing disturbances, construction of a new warehouse as part of the proposed project would not significantly interfere with the movement of any native wildlife species.
Vegetation Management Goal 3: To locate, define, and protect other beneficial natural habitats in and about the city.	Consistent: The project site does not contain any sensitive natural communities or critical habitats, nor is it adjacent to any. Additionally, the project site does not contain any state or federally protected waters or wetlands, nor is it adjacent to any.
Water Resource Management Goal 2: To enforce existing ordinances and develop new ordinances and promote continuing research directed toward achieving the required stringent water quality standards which regulate wastewater effluent discharge to ocean waters, bays and estuaries, fresh waters, and groundwater.	Consistent: As discussed in the Initial Study (Appendix A), the proposed project would comply with existing City ordinances regarding stormwater and water quality including: ▪ Long Beach Municipal Code (LBMC) Section 18.61.050 requiring construction plans to include construction and erosion and sediment control best management practices. ▪ LBMC Section 18.61.40 regarding design and implementation of post-construction controls to mitigate stormwater pollution
Overall Goal 2: To create and maintain a productive harmony between man and his environment through conservation of natural resources and protection of significant areas having environmental and aesthetic value	Consistent: The project site is currently vacant and relatively unmaintained and has low habitat value and visual quality. As explained in Section 1, *Aesthetics* of the *Environmental Checklist* section of the Initial Study (Appendix A of this EIR), the proposed project would change the visual character of the project site to developed and would improve the visual character of the site by providing infrastructure and landscaping in harmony with areas surrounding the site. The proposed project would not impact natural or scenic resources.
Historic Preservation Element	
Goal 2: Protect historic resources from demolition and inappropriate alterations through the use of the City's regulatory framework, technical assistance, and incentives.	Consistent: No built environment cultural resources that may be considered historical resources are present within the project site.
Noise Element	
Strategy No. 3: Capitalize on urban design techniques and business operation strategies within business and employment center PlaceTypes (Community Commercial, Industrial, Neo-Industrial, Regional-Serving Facility, Port of Long Beach) to minimize noise impacts on surrounding adjacent uses. Policy N 3-2: Ensure new industrial uses are in compliance with the City's Noise Ordinance.	Consistent: Construction of the proposed project would temporarily increase noise levels, potentially affecting nearby noise-sensitive land uses. Development of the proposed project would also introduce new noise sources and contribute to increases in operational noise. The continued regulation of noise, consistent with the City Code and General Plan noise element policies, would minimize disturbance to adjacent land uses. As discussed in Section 4.9 *Noise*, construction and operational stationary noise would not exceed standards.
Strategy No. 5: Implement best practices to reduce impacts of noise from industrial sources. Policy N 5-1: In observance of requirements imposed by the California Air Resources Board (CARB), limit the idling of heavy trucks during nighttime hours to less than five minutes.	Consistent: Diesel trucks would idle no more than 5 minutes during each loading/unloading operation per the CARB and South Coast Air Quality Management District (SCAQMD) truck idling regulations.

General Plan Goal or Policy	Discussion
Strategy No. 12: Minimize construction noise and vibration levels in residential areas and in other locations near noise sensitive uses where possible. Policy N 12-2: Limit the allowable hours for construction activities and maintenance operations near sensitive uses	Consistent: The proposed project would comply with LBMC Sections 8.80.202A through 80.202C, which prohibit construction activities between the hours of 7:00 PM and 7:00 AM on weekdays and Federal holidays, between the hours of 7:00 PM on Friday and 9:00 AM on Saturday and after 6:00 PM on Saturday, and any time on Sunday.
Land Use Planning Goal 9: Protect business and industrial areas against intrusions of non-business or non-industrial land uses which are highly sensitive to noise.	Consistent: The proposed project is industrial and is not a noise-sensitive land use.
Transportation Noise Goal 2: Discouraging within transportation noise zones the development of noise sensitive uses that cannot be sufficiently insulated against externally generated noise at a reasonable cost.	Consistent: The proposed project is industrial and is not a noise-sensitive land use.
Construction and Industrial Noise Goal 1: To reduce the level of noise exposure to the population caused by demolition and construction activities	Consistent: Construction of the proposed project would temporarily increase noise levels, potentially affecting nearby noise-sensitive land uses. The continued regulation of noise, consistent with the City Code and General Plan noise element policies, would minimize disturbance to adjacent land uses. As discussed in Section 4.9 *Noise*, construction noise would not exceed standards.
Construction and Industrial Noise Goal 2: To reduce the level of outdoor noise exposure to the population generated by industries	Consistent: Development of the proposed project would introduce new noise sources and contribute to increases in operational noise. The continued regulation of noise, consistent with the City Code and General Plan noise element policies, would minimize disturbance to adjacent land uses. As discussed in Section 4.9, *Noise*, operational stationary noise would not exceed City standards.
Open Space and Recreation Element	
Policy 1.2: Protect and improve the community's natural resources, amenities, and scenic values including nature centers, beaches, bluffs, wetlands, and water bodies.	Consistent: As discussed in the Initial Study, development of the proposed project would not obstruct public views of scenic vistas because no scenic vistas are available in the project site vicinity, and the project site is not part of, and would not block views towards, any scenic vista. Additionally, the project site is devoid of scenic features such as scenic trees, rock outcroppings, and historic resources and development of the proposed project would not result in the obstruction of public views of scenic vistas or scenic resources on the project site or in the project site vicinity.
Policy 4.10: Require all new developments to provide usable open space tailored to the recreational demands they would otherwise place on public resources.	Consistent: As discussed in the Initial Study, the proposed project does not involve housing construction and would not generate substantial unplanned population growth. Also, the proposed project is a commercial use and employees of the project site would not contribute substantially to use of local parks during their workdays. Although the proposed project does not include any open space it would not create additional recreational demands on public resources.

General Plan Goal or Policy	Discussion
Public Safety Element	
Goal 1. Use safety precautions as one means of preventing blight and deterioration.	Consistent: The proposed project would develop an industrial project on a currently vacant site. As discussed in Chapter 2, *Project Description,* the proposed project would include signage posted around the project site to indicate entrances and activity nodes, prohibit loitering and trespassing, and warn of surveillance on the site. The proposed project would also include security cameras dispersed throughout the project site.
Goal 3: Provide an urban environment which is as safe from all types of hazards as possible.	Consistent: Based on the findings of the Phase II Environmental Site Assessment, the Construction Health Risk Assessment, and the operational the Health Risk Assessment discussed in Section 4.7, *Hazards and Hazardous Materials*, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. In addition, as discussed in the Initial Study, the project site is not located in a wildland fire hazard area as defined by the Department of Forestry and Fire Protection and the proposed project would not affect the potential for wildland fires to occur or expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. Furthermore, the project site is not located within an airport land use plan, or within two miles of a public airport or public use airport and would not result in a safety hazard or excessive noise for people residing or working in the project area.
Goal 4: Effectively utilize natural or man-made landscape features to increase public protection from potential hazards.	Consistent: Development of the proposed project, a variety of trees and shrubs would be added to the project site. One parking lot tree has been dedicated for every four parking stalls and one street tree has been dedicated for every 25 feet of street frontage. A total of 103 street trees would be located on all sides of the project site and 138 parking lot trees would be dispersed throughout the project site. These trees would provide suitable shade to the project site.
Goal 6: Encourage transportation systems, utilities, industries, and similar uses to locate and operate in a manner consistent with public safety goals.	Consistent: Adherence to the public safety goals and recommendations from the Public Safety Element of the Long Beach General Plan would ensure safety precautions and services. In addition, as discussed in Section 4.7 *Hazards and Hazardous Materials,* the proposed project would comply with Title 8, Health and Safety of the LBMC which would further ensure safety precautions and services.
Goal 7. Assure continued safe accessibility to all urban land uses throughout the city.	Consistent: As discussed in Section 4.11, *Transportation*, the proposed project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities and the proposed project would not substantially increase hazards due to a design feature.
Goal 9. Encourage development that would augment efforts of other safety-related Departments of the city (i.e., design for adequate access for firefighting equipment and police surveillance).	Consistent: As discussed in Section 4.11, *Transportation,* the proposed project is well-served by emergency services and does not propose any features that would inhibit emergency access to the project site or nearby areas. Therefore, the proposed project would not result in inadequate emergency access.

General Plan Goal or Policy	Discussion
Goal 10. Provide the maximum feasible level of public safety protection services.	Consistent: The proposed project would increase development intensity on the project site but the site is already served by the LBFD, is consistent with the land use designation and zoning of the site and would be subject to review by the LBFD and LBPD and all applicable regulations relating to fire and police protection. The proposed project would therefore not substantially affect the LBFD and LBPD's service ratios, response times, or other performance objectives to the extent that it would require new or physically altered fire protection or police facilities.
Goal 11: Critically evaluate proposed public or private actions which may pose safety hazards to residents or visitors.	Consistent: Adherence to the public safety goals and recommendations from the Public Safety Element of the Long Beach General Plan would ensure safety precautions and services. In addition, as discussed in Section 4.7 *Hazards and Hazardous Materials,* the proposed project would comply with Title 8, Health and Safety of the LBMC which would further ensure safety precautions and services.
Seismic Safety Element	
Development Goal 2: Provide an urban environment which is as safe as possible from seismic risk.	Consistent: As explained in the Initial Study (Appendix A) and Section 4.5, *Geology and Soils*, the proposed project would comply with all requirements of the California Building Code, including but not limited to those pertaining to foundation design, structural design, grading, excavation, and backfill compaction standards.
Development Goal 4: Encourage development that would be most in harmony with nature and thus less vulnerable to earthquake damage.	Consistent: According to Plate 9, "Slope Stability Study Areas" of the Long Beach General Plan Seismic Safety Element, the project site is not located in an area of slope instability.
Development Goal 5: Strive to encourage urbanization patterns which preserve and/or create greater earthquake safety for residents and visitors.	Consistent: As discussed in section 4.5 *Geology and Soils*, the Geotechnical report indicates that there are no known geologic or soil conditions which would prevent the development of the property as planned.

Table 4.8-2 SCAG's 2020 RTP/SCS Policy Consistency

RTP/SCS Goal	Discussion
Encourage regional economic prosperity and global competitiveness	Consistent: The proposed project consists of the development of a warehouse and distribution center with accessory offices. Goods would be imported via the nearby Port of Los Angeles and Port of Long Beach, sorted and stored on-site, and then distributed nationally from the project site. The proposed project would therefore encourage regional economic prosperity through the creation of jobs and by improving the system for the storage and distribution of goods. In turn this would improve the global competitiveness of Southern California by improving the efficiency of the transportation of goods throughout the region. Therefore, the proposed project would be consistent with this goal.
Improve mobility, accessibility, reliability, and travel safety for people and goods	Consistent: The development of a warehouse and distribution center would improve mobility, accessibility, reliability, and travel safety for the transportation of goods throughout the region. As discussed in Section 4.7 *Hazards and Hazardous Materials,* the proposed project would comply with Title 8, Health and Safety of the LBMC which would ensure safety precautions and services. The new distribution center would also make the delivery of goods throughout the region more efficient and reliable. Therefore, the proposed project would be consistent with this goal.
Increase person and goods movement and travel choices within the transportation system	Consistent: The proposed project would import goods via the nearby Port of Los Angeles and Port of Long Beach, sort and store them on-site, and then distribute them nationally from the project site. Instead of distributing goods directly from the ports, goods would be distributed from the project site – adding an additional distribution hub to the regional transportation system. Therefore, the proposed project would be consistent with this goal.

Los Angeles River Master Plan

As discussed in Section 4.8.2 *Regulatory Setting*, the following goals are included in the Los Angeles River Master Plan:

- Reduce flood risk and improve resiliency
- Provide equitable, inclusive, and safe parks, open space, and trails
- Support healthy connected ecosystems
- Enhance opportunities for equitable access to the river corridor
- Embrace and enhance opportunities for arts and culture
- Address potential adverse impacts to housing affordability and people experiencing homelessness
- Foster opportunities for continued community engagement, development, and education
- Improve local water supply reliability
- Promote healthy, safe, clean water

The proposed project would be consistent with the Los Angeles River Master Plan goal of fostering community development through the development of a warehouse and distribution center with accessory offices and creating jobs and bringing economic development to the area. The proposed project would also support healthy connected ecosystems though the addition of landscaping, including 241 trees and a variety of shrubs, to a currently vacant lot. In addition, as discussed in Section 10, *Hydrology and Water Quality,* of the Initial Study (Appendix A), the proposed project would be required to comply with the NPDES Multiple Separate Storm Sewer System (MS4) Permit (Order No. R4-2021-0105 NPDES Permit No. CAS004004) issued by the Los Angeles Regional Water Quality Control Board, which would require implementation of Best Management Practices (BMPs). BMPs would be required to reduce polluted runoff from the project site by retaining, treating, or infiltrating polluted runoff onsite. These measures would be consistent with the Los Angeles River Master Plan goals of reducing flood risk and improving resiliency and promoting healthy, safe, and clean water. As stated in Section 4.8.2, *Regulatory Setting*, the project site is not within any designated Opportunity Areas. Therefore, the proposed project would be consistent with the Los Angeles River Master Plan.

While the proposed project would be consistent with the Los Angeles River Master Plan, it should be noted that this Plan is a County of Los Angeles document, and it is not applicable to projects outside of the City of Los Angeles' jurisdiction. The City of Long Beach has not adopted the Master Plan, though it was a member of the Advisory and Steering Committees which coordinated with the County of Los Angeles in the preparation of the Master Plan. Nevertheless, the proposed project would be consistent with the Los Angeles River Master Plan.

Lower Los Angeles River Revitalization Plan

As discussed in Section 4.8.2 *Regulatory Setting*, the Revitalization Plan includes 155 Opportunity Areas that can be developed into revitalization projects aligned with the guiding principles of the Revitalization Plan. The project site is Opportunity Area 99. The Revitalization Plan identifies Opportunity Area 99 as a site for improvements but does not state any specific actions proposed for the Opportunity Area. Although the proposed project would develop an Opportunity Site designated by the Lower Los Angeles River Revitalization Plan with an industrial building, the Feasibility Report prepared by the did not identify the project site as one of the nine opportunity sites determined to be likely sites of acquisition. Additionally, the project site is private property, and the Plan does not have jurisdiction over the project site to enforce the Opportunity Area's potential improvements. Likewise, the zoning and general plan designations of the site also reflect that the site is held in private ownership and intended for private development. Because the City determined the project site is not a likely site for park acquisition and the Lower Los Angeles River Revitalization Plan does not have the regulatory power to acquire or regulate the project site, the proposed project would not substantially conflict with the Lower Los Angeles River Revitalization Plan.

West Long Beach Business Parks Planned Development Plan (PD-26)

As discussed in Section 4.8.2 *Regulatory Setting*, the intent of the West Long Beach Business Parks Planned Development Plan (PD-26) is to provide a framework to guide substantial private development into a high-intensity business center. PD-26 is the effective zoning document for the project site. The proposed project would provide economic development and jobs to the area. Therefore, the proposed project would be consistent with (PD-26) goals to provide jobs and to advance the city's economic development as well as guiding substantial private development into a high-intensity business center.

Long Beach RiverLink Plan

As discussed in Section 4.8.2, *Regulatory Setting*, the main goals of RiverLink are:

- To identify areas for the acquisition of additional open space. The City is seeking to provide eight (8.0) acres of recreational open space for each 1,000 residents of the city. To achieve this, approximately 1,100 acres needs to be added to the current inventory of 2,855 acres
- To identify ways to connect city residents to the Los Angeles River. This is primarily oriented toward improving physical access to the bicycle and pedestrian trails on the levees and open spaces along the river
- To identify locations along the Los Angeles River where the native habitats could be restored. This is to preserve the scarce remnants of Long Beach's biological heritage, and to allow that heritage to recover to the point that its existence will no longer be threatened. Furthermore, this is to provide places of contact where residents can understand and value that heritage
- To improve the aesthetics of the Los Angeles River and the city

As stated in Section 4.8.4, *Regulatory Setting*, the proposed project is not located in any areas identified by the RiverLink as destinations, gateways, pathways, or connections. Furthermore, the proposed project also satisfies the goal of improving the aesthetics of the Los Angeles River and the city by improving the visual character and quality of the currently vacant project site by providing infrastructure and landscaping in harmony with areas surrounding the site. Therefore, the proposed project is consistent with RiverLink. It should be noted that RiverLink is an aspirational plan document, is not adopted into the General Plan or the Zoning Regulations and is not regulatory in nature. Nevertheless, the proposed project would be consistent with the Long Beach RiverLink Plan.

Mitigation Measures

The proposed project would not conflict with applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. This impact would be less than significant, so mitigation is not required.

4.8.4 Cumulative Impacts

Onsite development, combined with other planned and pending projects in and near the project site (discussed in Section 3.3, *Cumulative Development*), would contribute toward increasing development in the already developed urban environment of the city However, all such development would be subject to applicable provisions of the City of Long Beach General Plan and other governing land use policies. As such, cumulative impacts relating to inconsistencies with applicable environmental policies are not anticipated. As discussed in Section 4.8.3, *Impact Analysis*, the proposed project would be consistent with applicable provisions of the City of Long Beach General Plan and other applicable policy documents. The proposed project would also change the project site from its currently vacant state to an office/warehouse land use that would be more consistent with surrounding land uses and the land use designation and zoning of the site. Therefore, the proposed project would not contribute to any cumulative impacts relating to land use and planning.

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4.9 Noise

This section evaluates the potential short-term and long-term noise and vibration impacts associated with the construction and operation of potential development that would be allowed under the proposed project. This analysis is intended to satisfy the City of Long Beach's (City's) requirement for a project noise impact analysis by examining the short-term construction and long-term operational impacts on on-site and off-site land uses involving sensitive receptors, and evaluating the effectiveness of proposed mitigation measures. Sound level measurement data is included in Appendix M. The analysis is based on policies from the 2023 Noise Element of the Long Beach General Plan, and the City of Long Beach Municipal Code.

4.9.1 Environmental Setting

Characteristics of Noise

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment. Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so that they are consistent with the human hearing response, which is most sensitive to frequencies around 4,000 Hertz and less sensitive to frequencies around and below 100 Hertz. Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of roadway vehicle volume, would increase the noise level by 3 dBA; reducing the energy in half would result in a 3 dBA decrease. Table 4.9-1 shows some representative noise sources and their corresponding noise levels in dBA.

Table 4.9-1 Typical A-Weighted Noise Levels

Indoor Noise Source	Noise Level (dBA)	Outdoor Noise Sources
(Threshold of Hearing in Laboratory)	0	—
Library	30	Quiet Rural Nighttime
Refrigerator Humming	40	Quiet Suburban Nighttime
Quiet Office	50	Quiet Urban Daytime
Normal Conversation at 3 feet	60	Normal Conversation at 3 feet
Vacuum Cleaner at 10 feet	70	Gas Lawn Mower at 100 feet
Hair Dryer at 1 foot	80	Freight Train at 50 feet
Food Blender at 3 feet	90	Heavy-duty Truck at 50 feet
Inside Subway Train (New York)	100	Jet Takeoff at 2,000 feet
Smoke Detector Alarm at 3 feet	110	Unmuffled Motorcycle
Rock Band near stage	120	Chainsaw at 3 feet
—	130	Military Jet Takeoff at 50 feet
—	140	(Threshold of Pain)

Source: Data compiled by Rincon in 2022.

Human perception of noise has no simple correlation with sound energy: the perception of sound is not linear in terms of dBA or in terms of sound energy. Two sources do not "sound twice as loud" as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease (i.e., twice the sound energy); that a change of 5 dBA is readily perceptible; and that an increase (or decrease) of 10 dBA sounds twice (or half) as loud.

Sound changes in both level and frequency spectrum as it travels from the source to the receiver. The most obvious change is the decrease in level as the distance from the source increases. The manner in which noise reduces with distance depends on factors such as the type of sources (e.g., point or line, the path the sound will travel, site conditions, and obstructions). Noise levels from a point source typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance (e.g., construction, industrial machinery, ventilation units). Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance. The propagation of noise is also affected by the intervening ground, known as ground absorption. A hard site, such as a parking lot or smooth body of water, receives no additional ground attenuation and the changes in noise levels with distance (drop-off rate) result from simply the geometric spreading of the source. An additional ground attenuation value of 1.5 dBA per doubling of distance applies to a soft site (e.g., soft dirt, grass, or scattered bushes and trees). Noise levels may also be reduced by intervening structures. The amount of attenuation provided by this "shielding" depends on the size of the object and the frequencies of the noise levels. Natural terrain features such as hills and dense woods, and man-made features such as buildings and walls, can substantially alter noise levels. Generally, any large structure blocking the line of sight will provide at least a 5-dBA reduction in source noise levels at the receiver. Structures can substantially reduce exposure to noise as well. The FHWA's guidelines indicate that modern building construction generally provides an exterior-to-interior noise level reduction of 20 to 35 dBA with closed windows.

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important factors of project noise impact. Most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors have been developed. One of the most frequently used noise metrics is the equivalent noise level (L_{eq}); it considers both duration and sound power level. L_{eq} is defined as the single steady A-weighted level equivalent to the same amount of energy as that contained in the actual fluctuating levels over time. Typically, L_{eq} is summed over a one-hour period. L_{max} is the highest root mean squared (RMS) sound pressure level within the sampling period, and L_{min} is the lowest RMS sound pressure level within the measuring period.

Noise that occurs at night tends to be more disturbing than that occurring during the day. Community noise is usually measured using Day-Night Average Level (L_{dn}), which is the 24-hour average noise level with a +10 dBA penalty for noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours; it is also measured using Community Noise Equivalent Level (CNEL), which is the 24-hour average noise level with a +5 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a +10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. Noise levels described by L_{dn} and CNEL usually differ by about 1 dBA or less. The relationship between the peak-hour L_{eq} value and the L_{dn}/CNEL depends on the distribution of roadway noise during the day, evening, and night. Quiet suburban areas typically have CNEL noise levels in the range of 40 to 50 dBA, while areas near arterial streets are in the 50 to 60-plus CNEL range. Normal conversational levels are in the 60 to 65-dBA L_{eq} range; ambient noise levels greater than 65 dBA L_{eq} can interrupt conversations. Table 4.9-2 briefly defines measurement descriptors and other sound terminology used in this section.

Table 4.9-2 Sound Terminology

Term	Definition
Sound	A vibratory disturbance created by a vibrating object which, when transmitted by pressure waves through a medium such as air, can be detected by a receiving mechanism such as the human ear or a microphone.
Noise	Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
Ambient Noise	The composite of noise from all sources near and far in a given environment.
Decibel (dB)	A unitless measure of sound on a logarithmic scale, which represents the squared ratio of sound-pressure amplitude to a reference sound pressure. The reference pressure is 20 micropascals, representing the threshold of human hearing (0 dB).
A-Weighted Decibel (dBA)	An overall frequency-weighted sound level that approximates the frequency response of the human ear.
Equivalent Noise Level (L_{eq})	The average sound energy occurring over a specified time. In effect, L_{eq} is the steady-state sound level that in a stated period would contain the same acoustical energy as the time-varying sound that actually occurs during the same period.
Ambient Noise	The composite of noise from all sources near and far in a given environment.
Maximum and Minimum Noise Levels (L_{max} and L_{min})	The maximum or minimum instantaneous sound level measured during a measurement period.
Day-Night Level (DNL or L_{dn})	The energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring between 10:00 p.m. and 7:00 a.m. (nighttime).
Community Noise Equivalent Level (CNEL)	The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added to the A-weighted sound levels occurring between 7:00 p.m. and 10:00 p.m. and 10 dB added to the A-weighted sound levels occurring between 10:00 p.m. and 7:00 a.m.

Source: Data compiled by Rincon in 2022.

Characteristics of Vibration

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent structures. The number of cycles per second of oscillation makes up the vibration frequency, described in terms of Hertz. The frequency of a vibrating object describes how rapidly it oscillates. The normal frequency range of most groundborne vibration that can be felt by the human body is from a low of less than 1 Hertz up to a high of about 200 Hertz. Typically, groundborne vibration generated by human activities attenuates rapidly with distance from the source of the vibration.

While people have varying sensitivities to vibrations at different frequencies, in general they are most sensitive to low-frequency vibration. Vibration in buildings, such as from nearby construction activities, may cause windows, items on shelves, and pictures on walls to rattle. Vibration of building components can also take the form of an audible low-frequency rumbling noise, referred to as groundborne noise. Groundborne noise is usually only a problem when the originating vibration spectrum is dominated by frequencies in the upper end of the range (60 to 200 Hertz), or when foundations or utilities, such as sewer and water pipes, physically connect the structure and the vibration source.

Vibration energy spreads out as it travels through the ground, causing the vibration level to diminish with distance away from the source. High-frequency vibrations diminish much more rapidly than low frequencies, so low frequencies tend to dominate the spectrum at large distances from the source.

Discontinuities in the soil strata can also cause diffractions or channeling effects that affect the propagation of vibration over long distances. When a building is impacted by vibration, a ground-to-foundation coupling loss will usually reduce the overall vibration level. However, under rare circumstances, the ground-to-foundation coupling may amplify the vibration level due to structural resonances of the floors and walls.

Vibration amplitudes are usually expressed in peak particle velocity (PPV). The PPV is normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used in monitoring of blasting vibration and other construction activity because it is related to the stresses that are experienced by buildings. Table 4.9-3 summarizes the vibration damage criteria recommended by the FTA for evaluating the potential for architectural damage to buildings.

Table 4.9-3 Criteria for Vibration Damage Potential

Building Category	PPV (in/sec)
I. Reinforced concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

in/sec = inches per second; PPV = peak particle velocity

Source: Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment*. November. Available at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf (accessed October 2022).

Noise-Sensitive Land Uses

Acceptable noise level thresholds typically vary depending upon the type of affected land use and the time of day. According to the Noise Element of the Long Beach General Plan, noise-sensitive land uses include residential neighborhoods, schools, hospitals, religious facilities, libraries, offices and parks (Long Beach 2023).

The project site is located at 4000 Via Oro Avenue on a vacant property surrounded by Via Oro Avenue to the west, West Carson Street to the south, West Via Plata Street to the north, and the Interstate 710 (I-710) freeway to the east. The general project area is characterized by a mix of commercial and industrial uses, such as manufacturing and warehousing. As shown in Figure 4.9-1, the nearest sensitive receivers are residences approximately 600 feet northwest of the project site on South Caspian Avenue; as well as Rancho Dominguez Preparatory School and Dominguez Elementary School, both of which are approximately 650 feet west of the project site, all outside the City limits in the Rancho Dominguez unincorporated area of Los Angeles County. Short-term noise measurements were taken at or near these sensitive receptors (ST-1 and ST-4 on Figure 4.9-1), as well as at the midpoint of the southern boundary of the project site and the midpoint of the northern boundary of the project site (ST-3 and ST-2 on Figure 4.9-1), to establish existing noise conditions for the project area.

Figure 4.9-1 Noise Measurement Locations

Existing Noise Conditions and Sources

The primary noise sources in the project area are motor vehicles (i.e., automobiles, buses, and trucks), particularly medium- and heavy-duty trucks along the roads surrounding the project site, and vehicle noise from the I-710 freeway. Motor vehicle noise is characterized by a high number of individual events (operation of each individual motor vehicle is considered one event) that often create sustained noise levels. Ambient noise levels in areas where motor vehicles are the primary noise source are typically highest during the daytime and peak traffic periods unless congestion results in substantial slowing of vehicular speed. The project area is also exposed to operational noise from existing commercial and industrial equipment to the north, south and west. The nearest airport or airstrip is the Long Beach Airport, which is located over two miles east of the project site. According to the Los Angeles County Airport Land Use Commission (ALUC), the project site is outside the noise contours shown in the ALUP for this airport (ALUC 1991). In addition, there are no private airstrips near the project site.

To determine ambient noise levels in the project area, four 15-minute sound level measurements were taken using an Extech ANSI Type II sound level meter with an A-weighted slow-response meter setting. The meter was placed 5 feet above ground level. Measurements were conducted during the morning hours between 10:30 a.m. and 12:00 p.m. on Thursday, January 26, 2023 (refer to Appendix M for sound measurement data). Noise measurement location ST-1 was selected to capture ambient noise from vehicle traffic at the nearest single-family residences located northwest of the project site. Noise measurements ST-2 was selected to capture existing noise at the northern end of the project site from the I-710 freeway. Noise measurements ST-3 was selected to capture existing noise at the southern end of the project site from the I-710 freeway and Carson Street. Noise measurement ST-4 was selected to capture ambient noise from traffic on Carson Street and the railroad to the west of the project site near the Rancho Dominguez Preparatory School. The results of the measurements are shown in Table 4.9-4.

4.9.2 Regulatory Setting

Federal Regulations

Federal Transit Administration

The FTA provides reasonable criteria for assessing construction noise impacts based on the potential for adverse community reaction in their *Transit and Noise Vibration Impact Assessment Manual* (FTA 2018). For residential uses, the daytime noise threshold is 80 dBA L_{eq} for an 8-hour period. For industrial uses, the daytime noise threshold is 90 dBA L_{eq} for an 8-hour period.

Local Regulations

City of Long Beach General Plan Noise Element

The Noise Element describes the existing and future noise conditions and issues in the city. The Noise Element establishes strategies and policies that guide noise planning within the City of Long Beach (Long Beach 2023). Strategies and policies applicable to the proposed project are discussed in Section 4.8, *Land Use and Planning.*

Table 4.9-4 Short-Term Noise Level Measurement Results

Measurement Location	Measurement Location	Sample Times	Approximate Distance to Primary Noise Source or Project Site	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)
ST 1	North side of Dominguez Park on E. Van Buren Street	10:32 – 10:47 a.m.	Approximately 1,390 feet west of the I-710 freeway, 670 feet east of Santa Fe Avenue, and 20 feet south of E. Van Buren Street.	55.6	66.9	52.7
ST 2	Midpoint of northern boundary of project site	11:00 – 11:15 a.m.	Approximately 430 feet west of the I-710 Freeway, 1,410 feet south of W. Carson Street, 270 feet east of Via Oro Avenue and 15 feet south of W. Via Plata Street.	66.0	72.0	63.3
ST 3	Midpoint of southern boundary of project site	11:20 – 11:35 a.m.	Approximately 595 feet west of the I-710 Freeway, 470 feet east of Via Oro Avenue and 15 feet north of W. Carson Street.	63.3	70.5	59.6
ST-4	North side of Carson Street at the southeast corner of Rancho Dominguez Preparatory School	11:42 – 11:57 a.m.	Approximately 1,750 feet west of the I-710 Freeway, 620 feet east of Santa Fe Avenue and 15 feet north of Carson Street.	62.6	77.5	53.3

dBA = A-weighted decibels; L_{eq} = equivalent noise level; L_{min} = minimum noise level, L_{max} = maximum noise level

City of Long Beach Municipal Code

The City of Long Beach Municipal Code (LBMC) contains the City's adopted Noise Ordinance (LBMC Chapter 8.80), which sets exterior and interior noise standards. As outlined in LBMC Section 8.80.150, maximum exterior noise levels are based on land use districts identified for the City. According to the Noise District Map in LBMC Section 8.80.160, the project area is comprised of Districts One, Three, and Four. The project site and surrounding industrial/manufacturing and warehousing uses north, west, and south of the project site are in Districts Three and Four, which are defined as "predominantly industrial with other land use types also present." Other residential and school land uses near the project site are designated as District One, which is defined as "predominantly residential with other land use types also present." Table 4.9-5 summarizes the City's exterior noise limits for Districts Three and Four.

Table 4.9-5 Exterior Noise Limits

Receiving Land Use District	Maximum Noise Criteria (dB L_{max})	
	Daytime (7:00 a.m. to 10:00 p.m)	Nighttime (10:00 p.m. to 7:00 a.m.)
District One – Predominantly residential with other land use types also present	50	45
District Three[1] – Predominantly Industrial with other land use types also present	65	65
District Four[1] – Predominantly Industrial with other land use types also present	70	70

[1] Districts Three and Four limits are intended primarily for use at their boundaries rather than for noise control within those districts.
Note: dB = decibel(s)
L_{max} = maximum instantaneous noise level
Source: LBMC Section 8.80.160

In reference to the noise limits in Table 4.9-5, LBMC Section 8.80.150 also states that:

> No person shall operate or cause to be operated any source of sound at any location within the incorporated limits of the city or allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, which causes the noise level when measured from any other property, either incorporated or unincorporated, to exceed any of the following:
>
> 1. The noise standard for that land use district for a cumulative period of more than thirty minutes in any hour
> 2. The noise standard plus five decibels for a cumulative period of more than fifteen minutes in any hour
> 3. The noise standard plus ten decibels for a cumulative period of more than five minutes in any hour
> 4. The noise standard plus fifteen decibels for a cumulative period of more than one minute in any hour
> 5. The noise standard plus twenty decibels or the maximum measured ambient, for any period of time
>
> If the measured ambient level exceeds that permissible within the first four of the above categories, the allowable noise exposure standard shall be increased in five decibels increments in each category as appropriate to encompass or reflect the ambient noise level. In the event the ambient noise level exceeds the fifth category listed above, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

LBMC Section 8.80.170 establishes standards for interior noise in various land use types in District One, which are provided in Table 4.9-6. The LBMC does not include interior noise standards for industrial land uses.

Table 4.9-6 Interior Noise Limits

Receiving Land Use District	Type of Land Use	Time Period	Interior Noise Level Limit (dBA)
All	Residential	10:00 p.m. to 7:00 a.m. 7:00 a.m. to 10:00 p.m.	35 45
All	School	7:00 a.m. to 10:00 p.m. (while school is in session)	45
Hospital; designated quiet zones and noise-sensitive zones		Anytime	40

Source: LBMC Section 8.80.170

LBMC Section 8.80.200 regulates noise disturbances, including vibration. A violation of the noise ordinance would occur if the operation of any device that creates vibration above the "vibration perception threshold" of an individual occurs at or beyond the property boundary of the source on private property or at 150 feet from the source on public space or right-of-way. "Vibration perception threshold" is defined as the "minimum ground or structure-borne vibrational motion necessary to cause a normal person to be aware of the vibration [through] touch or visual observation of moving objects." The perception threshold is 0.001 g (where 'g' equals the acceleration of gravity, or 32.2 feet per seconds squared) in the 0 to 30 hertz frequency range and 0.003 g in the 30 to 100 hertz frequency range. Additional noise disturbances include:

- Creating or causing the creation of any sound within any noise-sensitive zone, so as to exceed the specified land use noise standards set forth in Sections 8.80.150 and 8.80.170; or
- Creating or causing the creation of any sound within or adjacent to any noise-sensitive zone containing a hospital, nursing home, school, court, or other designated use so as to interfere with the functions of such activity or annoy the patients or participants of such activity

LBMC Sections 8.80.202(A) through 8.80.202(C) establish construction activity-noise regulations for weekdays, federal holidays, Saturdays, and Sundays. Construction activities are prohibited between the hours of 7:00 p.m. and 7:00 a.m. the following day on weekdays and federal holidays. In addition, construction activities are prohibited between the hours of 7:00 p.m. on Friday and 9:00 a.m. on Saturday and after 6:00 p.m. on Saturday. No construction activities may occur on Sunday unless a permit is issued from the City noise control officer, and construction activities are limited to between the hours of 9:00 a.m. and 6:00 p.m.

4.9.3 Impact Analysis

a. Methodology and Significance Thresholds

According to CEQA Guidelines Appendix G, impacts related to noise and vibration would be potentially significant if implementation of the proposed project would do any of the following:

1. 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
2. Result in generation of excessive groundborne vibration or groundborne noise levels
3. 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, expose people residing or working in the project area to excessive noise levels

As discussed in the Initial Study (Appendix A), the proposed project would have no impact related to impacts from airport noise and, as such, this issue is not discussed further in this EIR. This section therefore focuses on assessing the proposed project's consistency with applicable noise policies and regulations and its potential to generate excessive groundborne vibration or groundborne noise levels.

Construction Noise

Project construction noise criteria consider the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use.

While the City does not have specific noise level criteria for assessing construction noise impacts, the FTA has developed guidance for determining if construction of a project would expose various land uses to significant noise levels or if a project would result in a substantial temporary increase in noise levels (FTA 2018). Besides noise-sensitive residential uses to the northwest, the remainder of the project area consists of I-710 to the east and other manufacturing uses, warehousing uses, and commercial uses to the north, west, south, and northeast, which are not typically considered noise-sensitive during the hours of allowed construction. Nonetheless, the FTA includes construction noise level limits for both residential, commercial, and industrial land uses. Based on FTA guidance, a significant impact would occur if construction noise generated by the proposed project exceeds the 8-hour 80 dBA L_{eq} noise limit at the nearest residences, the 8-hour 85 dBA L_{eq} noise limit at the nearest commercial uses, and the 8-hour 90 dBA L_{eq} noise limit at the nearest industrial uses, as shown in Table 4.9-7.

Table 4.9-7 Construction Noise Level Limits

Land Use	8-hour Noise Limit (dBA, L_{eq})
Residential	80
Commercial	85
Industrial	90

Source: FTA 2018

To determine construction noise impacts, noise was estimated using the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) Version 1.1. Noise was modeled at the property line of the nearest noise-sensitive receivers, commercial uses, and industrial uses, from the center of on-site construction activity. From the center of the project site, the nearest noise-sensitive receivers are single-family residences located approximately 1,175 feet northwest. The nearest school is located approximately 880 feet west of the center of the project site. The nearest commercial/industrial uses are located approximately 485 feet west of the center of the project site across Via Oro Avenue. Therefore, construction noise was modeled at these distances. Attenuation from intervening structures or topography was conservatively not included in the calculations. Equipment assumed for each phase of construction was provided by using CalEEMod default assumptions, as discussed in Section 4.1, *Air Quality.*

Ground-borne Vibration

The proposed project would not include substantial vibration sources associated with operation. Construction activities have the greatest potential to generate groundborne vibration affecting nearby noise-sensitive receivers. Construction vibration levels that could occur due to buildout of the

proposed project are based on reference vibration levels published by the FTA. LBMC Section 8.80.200 contains a "vibration perception threshold"; however, this threshold is applicable to the operation of any device, whereas construction vibration would be a temporary source of groundborne vibration that would not expose surrounding properties to daily vibration beyond completion of project construction. Therefore, this analysis uses FTA criteria listed in Table 4.9-3 to determine the significance of construction vibration as it relates to the structural integrity of off-site buildings.

Operational Stationary Noise

Most warehousing and distribution activities associated with the proposed project would be conducted inside the proposed building, which would shield nearby noise-sensitive receivers from interior operational noise levels. Therefore, the primary on-site noise source associated with operation of the proposed project would consist of noise from loading dock activities, particularly that of medium- and heavy-duty trucks (e.g., engine startups, alarms, parking), and noise from roof-top mounted heating, ventilation, and air conditioning (HVAC) equipment. Delivery trucks at the proposed loading docks are assumed to have similar noise levels to ones obtained in the Noise Impact Analysis (2013) for the Bloomington Truck Terminal prepared by LSA Associates, Inc. (LSA) because the on-site activities would be similar. While reference sound power levels for trucks during loading and unloading activities were used to analyze operational noise impacts related to on-site loading dock activities, reference power levels for HVAC equipment specifications from Trane's Engineering Bulletin (1994) (which is an industry-standard reference for this information) were used to analyze operational noise impacts related to on-site roof-top HVAC equipment. On-site operational noise generated by the proposed project would be significant if noise levels exceed the City's exterior noise limits for Districts One, Three, and Four shown in Table 4.9-5, or interior noise limits for District One shown Table 4.9-6.

Based on a review of Trane HVAC equipment specifications (Trane 1994) and assuming that multiple HVAC equipment systems would be placed on the rooftop to satisfy building requirements, an enclosed 90-ton roof-mounted HVAC system would generate a sound power level (L_w) of 75 dBA L_w. A sound power level is the rate at which sound energy is emitted, reflected, transmitted, or received, per unit time. A 75 dBA L_w is equal to a sound pressure level of 65 dBA at three feet.

Operational Traffic Noise

The proposed project would also generate an increase in off-site traffic noise on the local transportation network. According to the Traffic Impact Assessment, the proposed project would generate 1,111 daily trips (Fehr and Peers 2023, Appendix D). While truck haul routes are not determined at this time, for a conservative analysis, it is assumed that 100 percent of traffic trips would occur on Santa Fe Avenue and West Wardlow Road.

b. Project Impacts and Mitigation Measures

Threshold:	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?

Impact NOI-1 CONSTRUCTION OF THE PROPOSED PROJECT WOULD TEMPORARILY INCREASE NOISE LEVELS, POTENTIALLY AFFECTING NEARBY NOISE-SENSITIVE LAND USES. THE PROPOSED PROJECT WOULD ALSO INTRODUCE NEW NOISE SOURCES AND CONTRIBUTE TO INCREASES IN OPERATIONAL NOISE. THE CONTINUED REGULATION OF NOISE, CONSISTENT WITH THE CITY CODE AND GENERAL PLAN NOISE ELEMENT POLICIES, WOULD MINIMIZE DISTURBANCE TO ADJACENT LAND USES, AND CONSTRUCTION AND OPERATIONAL STATIONARY NOISE WOULD NOT EXCEED STANDARDS. CONSTRUCTION NOISE IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Construction Noise

Construction noise would be generated during the site preparation, grading, building construction, paving, and architectural coating phases of construction. Distances and equipment assumed are discussed in Section 4.9.3. Estimated construction noise levels are shown in Table 4.9-8.

As shown in Table 4.9-8, construction noise levels would range from 46 to 62 dBA L_{eq} at the nearby properties. Noise levels would be loudest during the site preparation and grading phases. These noise levels would be well below the 80 dBA L_{eq}, 85 dBA $_{Leq,}$ and 90 dBA L_{eq} FTA thresholds for residential, commercial, and industrial land uses. LBMC Sections 8.80.202A through 80.202C prohibit construction activities between the hours of 7:00 PM and 7:00 AM on weekdays and Federal holidays, between the hours of 7:00 PM on Friday and 9:00 AM on Saturday, after 6:00 PM on Saturday, and any time on Sunday. Proposed project construction would be required to occur within the allowable hours for construction activities. Therefore, construction noise would not occur during nighttime sleep hours and disturb noise-sensitive residential receivers, and construction noise impacts would be less than significant.

Table 4.9-8 Maximum Construction Noise Levels

Construction Phase	Noise Level from On-Site Construction Activity						Noise Level Limit[1] dBA L_{eq} (8-hour)	Exceeds Limit?
	Residences (1,175 Feet)		School (880 Feet)		Commercial/ Industrial (485 Feet)			
	dBA, L_{max}	dBA, L_{eq}	dBA, L_{max}	dBA, L_{eq}	dBA, L_{max}	dBA, L_{eq}		
Site Preparation	57	58	59	57	67	62	Residential – 80 Commercial – 85 Industrial – 90	No No No
Grading	57	54	62	57	65	62	Residential – 80 Commercial – 85 Industrial – 90	No No No
Building Construction	53	53	56	56	61	61	Residential – 80 Commercial – 85 Industrial – 90	No No No
Paving	52	53	55	55	60	60	Residential – 80 Commercial – 85 Industrial – 90	No No No
Architectural Coating	46	50	49	53	54	58	Residential – 80 Commercial – 85 Industrial – 90	No No No

[1] See Table 5.
See Appendix M for RCNM data sheets and assumptions.

Operational Noise

The following discussion analyzes impacts associated with permanent on-site ambient and operational noise and off-site traffic noise.

Stationary Noise

LOADING BAY NOISE

Based on LSA's Noise Impact Analysis for the Bloomington Truck Terminal, the sound power level of one idling truck is 96 dBA (L_w) and the combined maximum sound power level for three idling trucks is approximately 101 dBA L_w (LSA 2013). A 101 dBA L_w is equal to a sound pressure level of 94 dBA at three feet, or 69 dBA at 50 feet. Loading activities involve several steps including the truck backing in, the doors opening or closing, the loading or unloading of cargo with a forklift, and the pulling away of the truck. Per State idling regulations (CCR Title 13, Section 2485), diesel trucks would idle no more than five minutes during each loading/unloading operation per the California Air Resources Board and South Coast Air Quality Management District truck idling regulations. Accounting for the fluctuation in activities, movement of the forklift in and out of the truck and building, and the duration of idling, the report estimated truck-loading activities would result in an hourly L_{eq} of approximately 64 dBA L_{eq} at 50 feet.

Potential truck activities on site include nine loading bays with 64 dock high doors and two ground level doors on the eastern side of the building, all facing east away from any noise sensitive receptors in the project area. Nevertheless, noise from truck and unloading activities at the loading docks would generate noise that may increase noise at nearby sensitive receptors. The noise scenarios analyzed for loading activities included the proposed project's nine loading bays generating noise levels at the

nearest residences to the northwest and the school and commercial and industrial uses to the west. Analyzing all nine bays operating at once is a conservative assumption as the diesel trucks would idle no more than five minutes during each loading/unloading operation per State idling regulations (CCR Title 13, Section 2485). The northernmost three loading bays and southernmost three bays are also analyzed separately. On-site loading bays would be located on the eastern façade of the proposed 60-foot-plus tall building and set back from the northeastern and southeastern building corners. This setback and configuration would block the line of sight between off-site receivers and loading bays and was assumed to reduce loading dock noise levels by approximately 10 dBA at the nearest noise-sensitive receivers. Estimated loading bay noise levels are shown in Table 4.9-9**.**

Table 4.9-9 Loading Bay Noise

		Loading Bays Center Point (9)[1]		Loading Bays North End (3)[2]		Loading Bays South End (3)[3]		
Receiver	Land Use Type	Distance from Source	Noise Level (dBA)[4]	Distance from Source	Noise Level (dBA)[4]	Distance from Source	Noise Level (dBA)[4]	Exceed Threshold?[5]
2912 E Van Buren Street	Single-family	1,295	36	950	33	1,720	28	No
The Rancho Dominguez Preparatory School	School	1,065	38	1,190	31	1,190	31	No
Nearest Commercial and Industrial	Commercial and Industrial	795	42	320	43	795	35	No

[1] Center point of loading bays is combined noise of all nine loading bays taken from the center point of loading bay area.

[2] North end loading bays is combined noise of the three northernmost loading bays.

[3] South end loading bays is combined noise of the three southernmost loading bays.

[4] Assumed 10 dBA attenuation from the setback and configuration of the loading bays being located on the eastern side of the building.

[5] District One threshold: Night – 10:00 pm – 7:00 am – 45 dBA; District Three threshold: Anytime – 65 dBA; District Four threshold: Anytime – 70 dBA

Table 4.9-9 shows that the noise levels for all nine loading bays is highest at the nearest Commercial and Industrial use to the west, with a noise level of 42 dBA. The noise levels would be below the City's 65 dBA threshold for District Three (Commercial and Industrial). In addition, truck loading bay noise levels were modeled at 36 dBA near 2912 E. Van Buren Street and 38 dBA at the Rancho Dominguez Preparatory School, which is below the City's 45 dBA threshold for District One (Residential and Schools); therefore, the loading dock noise levels would be less than significant.

HVAC Noise

The proposed project would include rooftop HVAC equipment. Typically, HVAC equipment is provided at a rate of 1 ton of nominal cooling/heating per 600 square feet. Based on a proposed building size of 517,437 square feet, the proposed project would require approximately 862 tons of HVAC. Assuming the HVAC is operating at full power for an hour results in a maximum hourly noise level of 65 dBA L_{eq} at three feet. Assuming that all HVAC equipment is set back a minimum of 10 feet from the rooftop edge, the building would block the line of sight at the ground level of adjacent properties and further reduce noise levels. Estimated HVAC noise levels are shown in Table 4.9-10.

Table 4.9-10 HVAC Noise

Receiver	Land Use Type	Distance from Source	Noise Level (dBA)	Exceed Threshold?[1]
2912 E Van Buren Street	Single-family	610	18	No
The Rancho Dominguez Preparatory School	School	600	19	No
Nearest Commercial and Industrial	Commercial and Industrial	140	32	No

[1] District One threshold: Night – 10:00 pm – 7:00 am – 45 dBA; District Three threshold: Anytime – 65 dBA; District Four threshold: Anytime – 70 dBA

Table 4.9-10 shows that the highest HVAC noise level (32 dBA) is at the nearest Commercial and Industrial use to the west. The noise levels would be well below the City's 65 dBA threshold for District Three (Commercial and Industrial). The modeled noise levels were 18 dBA CNEL near 2912 E. Van Buren Street and 19 dBA CNEL at the Rancho Dominguez Preparatory School, which is well below the City's 45 dBA threshold for District One (Residential and Schools); therefore, HVAC noise levels from the proposed project would be less than significant.

COMBINED STATIONARY NOISE LEVELS

The combined noise levels from loading bay activities and HVAC equipment are shown in Table 4.9-11. These noise levels would be below the City's 65 dBA threshold for District Three (Commercial and Industrial), as well as the City's 45 dBA threshold for District One (Residential and Schools). Therefore, operational noise from the proposed project would be less than significant.

Table 4.9-11 Combined Operational Noise

Receiver	Land Use Type	All Loading Bays Noise Level (dBA)	HVAC Units Noise Level (dBA)	Combined Noise Level[1] (dBA)	Exceed Threshold?[2]
2912 E Van Buren Street	Single-family	36	18	36	No
The Rancho Dominguez Preparatory School	School	38	19	38	No
Nearest Commercial and Industrial	Commercial and Industrial	42	32	42	No

[1] Combined noise levels calculated using the equation 10xLOG((POWER(10,Source 1/10)) + ((POWER(10,Source 2/10)). As decibels are a logarithmic unit, a noise level of 18 dBA being added to a noise level of 36 dBA results in a negligible noise increase.

[2] District One threshold: Night – 10:00 pm – 7:00 am – 45 dBA; District Three threshold: Anytime – 65 dBA; District Four threshold: Anytime – 70 dBA

Off-Site Traffic Noise

As shown in Table 4.9-12, noise levels related to an increase in traffic from the proposed project would increase by up to 0.4 dBA at the nearest roadway segments with sensitive receivers. Therefore, the proposed project would not result in a traffic noise increase of 3 dBA or more, and off-site traffic noise impacts would be less than significant.

Table 4.9-12 Predicted Increases in Traffic Noise Levels

Roadway Segments	Daily Trips		Noise Level Increase (dBA)	Significant Impact? [1]
	Existing	Existing Plus Proposed Project		
Santa Fe Avenue from City Limits to W Wardlow Road	19,800	20,911	0.2	No
Santa Fe Avenue from W Wardlow Road to W Spring Street	19,800	20,911	0.2	No
W Wardlow Road from Hesperian Avenue to Santa Fe Avenue	13,000	14,111	0.4	No
W Wardlow Road from Santa Fe Avenue to Delta Avenue	15,800	16,911	0.3	No

[1] A significant impact would occur if proposed project-related traffic increases the ambient noise environment of noise-sensitive locations by 3 dBA or more.

Sources: Fehr & Peers 2023 for proposed project trips; City of Long Beach 2014 for existing traffic volumes. See Appendix D.

Mitigation Measures

This impact would be less than significant, so no mitigation is required.

Threshold: Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

IMPACT NOI-2 CONSTRUCTION OF THE PROPOSED PROJECT WOULD TEMPORARILY GENERATE GROUNDBORNE VIBRATION, POTENTIALLY AFFECTING NEARBY LAND USES, BUT AT LEVELS WELL BELOW APPLICABLE VIBRATION DAMAGE THRESHOLDS. OPERATION OF THE PROPOSED PROJECT WOULD NOT RESULT IN SUBSTANTIAL GROUNDBORNE VIBRATION AND NOISE. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Construction

Construction activities known to generate excessive ground-borne vibration, such as pile driving, would not be used to construct the proposed industrial building and supporting facilities. The greatest anticipated source of vibration during general project construction activities would be from a dozer, which would be used as close as 100 feet during construction from the nearest buildings to the north, west, and south. A dozer would create a vibration level of approximately 0.089 PPV in/sec at a distance of 25 feet (Caltrans 2020). This would equal a vibration level of approximately 0.02 PPV in/sec at a distance of 100 feet.[1] This vibration level would be well below the engineered concrete and masonry vibration damage potential threshold of 0.3 PPV in/sec. Therefore, temporary impacts associated with the dozer (and other construction equipment with the potential to generate groundborne vibration) would be less than significant.

Operation

The proposed project would not involve substantial vibration sources associated with operation. Therefore, the proposed project's operational groundborne vibration and noise impacts would be less than significant.

[1] $PPV_{Equipment} = PPV_{Ref} (25/D)^n$ (in/sec), PPV_{Ref} = reference PPV at 25 feet, D = distance, and n = 1.1 (the n exponent value represents the combination of all the physical details of vibration movement through the ground. An n value of 1.1 is recommended by Caltrans for typical vibration calculations).

Mitigation Measures

This impact would be less than significant, so no mitigation is required.

4.9.4 Cumulative Impacts

Construction noise and vibration is localized and rapidly attenuates within an urban environment and has the potential to affect noise-sensitive uses within approximately 500 feet from the construction site. Thus, noise from construction activities for two projects within 1,000 feet of each other can contribute to a cumulative noise impact for receptors located midway between the two construction sites. The only planned project identified in Table 3-1, *Cumulative Projects List* of this EIR that is within 1,000 feet of the project site is the office and warehouse use at 3901 Via Oro Avenue, located approximately 600 feet to the southwest. Theoretically noise from this project could combine with noise from the proposed project to result in increased noise exposure to nearby noise sensitive receivers; however, real world conditions would result in less of a cumulative effect through noise direction, angles, attenuation, and dispersion, especially as these projects are not located near sensitive receivers. Therefore, while cumulative construction noise and vibration may occur from the proposed project and simultaneous construction of another project, a substantial cumulative construction noise and vibration impact would not occur as in practice this effect would be minimal.

Some nearby projects would include similar operational noise sources as the proposed project (e.g., mechanical equipment noise, heavy truck noise). However, as shown in the above analysis, operational noise from the proposed project is well below City standards due to the distance from the project site to sensitive receivers, and operational noise from these sources is localized and rapidly attenuates due to the effects of distance, intervening structures, and topography that block the line of sight. In addition, other ambient noise sources such as roadway traffic closer to the receivers would dominate the soundscape, effectively masking project-related noise that could create a substantial cumulative noise increase. Therefore, noise from the proposed project would not combine with noise from off-site sources to create a substantial increase in noise levels. As discussed in Impact NOI-1, the proposed project's addition to traffic would not result in a noticeable off-site traffic noise increase; thus, the proposed project's traffic noise increase would not be cumulatively considerable. No cumulative operational noise impacts would occur.

Neither the proposed project nor any of the cumulative projects would directly add airport capacity or change flights patterns. There would be no cumulative airport noise impact.

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4.10 Public Services

This section assesses the impact of the proposed project on public services, more specifically, fire and police protection. Section 15, *Public Services* of the Initial Study (Appendix A) determined that the proposed project would have no impact on public services (i.e., schools, parks, libraries) other than fire and police protection because the proposed project does not have a residential component and would therefore not create any population growth resulting in an increase in demand for these public services. Impacts related to water and wastewater infrastructure and solid waste collection and disposal are discussed in Section 4.13, *Utilities and Service Systems*. The information in this section is based in part on correspondence with the City of Long Beach Fire Department (LBFD), City of Long Beach Police Department (LBPD), the Long Beach General Plan (2002 Public Safety Element; 2002 Open Space Element; and 2013 Mobility Element) and communications with various service providers, as cited.

4.10.1 Setting

a. Fire Service

The LBFD provides fire and emergency medical services in the City of Long Beach. There are twenty-five fire stations located within the City, and there is also mutual aid support available from other fire stations located in adjacent cities. The closest fire station to the project site is Fire Station 13, located at 2475 Adriatic Avenue in Long Beach, approximately 2.4 miles south of the project site. This station houses an engine company and staff of four, and a truck company with an additional staff of four and a paramedic unit with a staff of two. Fire Station 13 is estimated to have an emergency response time of six minutes or less for 90 percent of the emergencies (personal communication, M. Aguirre, September 2023). In the event of major fires, the City has mutual aid agreements with cities and counties so that additional personnel and fire-fighting equipment can augment LBFD resources.

b. Police Service

The LBPD serves as the primary law enforcement service provider for the City of Long Beach, including the project site and its surroundings. The nearest LBPD substation is the North Division station located at 4891 Atlantic Ave, Long Beach, approximately a 3-mile drive northeast of the project site. LBPD headquarters is located at 400 West Broadway in Long Beach, approximately a 5.6-mile drive south of the project site. LBPD consists of approximately 800 sworn police officers and total staffing of over 1,200 employees (LBPD 2023). Based on a current total population of 458,222 for the City of Long Beach (DOF 2023), the current officer to population ratio is 1.7 sworn officers per 1,000 residents. LBPD's average response time for Priority One emergency calls is 5.1 minutes (LBPD 2023). For additional support, the LBPD maintains mutual aid agreements with the Los Angeles County Sheriff's Department and the Signal Hill Police Department.

4.10.2 Regulatory Setting

The project site is located within the jurisdiction of the City of Long Beach; therefore, the proposed project would be subject to the requirements of the Long Beach Municipal Code (LBMC) as related to public services, as well as applicable state requirements.

a. Fire

The California Code of Regulations (CCR) Title 24 (California Building Code [CBC]) is a compilation of building standards, including fire safety standards for residential and commercial buildings. CBC standards are based on building standards that have been adopted by state agencies without change from a national model code; building standards based on a national model code that have been changed to address particular California conditions; and building standards, authorized by the California legislature, not covered by the national model code. Typical fire safety requirements of the CBC include the installation of sprinklers in all high-rise buildings, the establishment of fire resistance standards for fire doors, building materials, and particular types of construction, and clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas. The CBC applies to all occupancies in California, except where more stringent standards have been adopted by local agencies. Chapter 18.48 of the LBMC includes several CBC fire safety regulations that have been amended and incorporated in the LBMC. This includes the use of fire-resistant building materials, fire suppression systems and other fire safety elements related to the design and construction of buildings.

Title 18 (Building and Construction Code) of the LBMC includes Chapter 18.23 (Fire Facilities Impact Fees) and Chapter 18.48 (Fire Code). Chapter 18.23 imposes a fire facilities impact fee on residential and non-residential development for the purposes of assuring that new development pays its fair share of the costs required to support needed fire facilities and related costs necessary to accommodate such development. The fee is imposed for every dwelling unit of a residential development and per gross square foot of floor area for non-residential development. The fire facilities impact fee is to be paid prior to issuance of the certificate of occupancy and is utilized for the acquisition of new property, the construction of new facilities, and the purchasing of equipment.

As detailed in Chapter 18.48 of the LBMC, the Fire Code incorporates the California Fire Code, 2007 Edition (CCR, Title 24, Part 9), which incorporates the International Fire Code, 2006 Edition. The Fire Code regulates and governs the safeguarding of life and property from fire and explosion hazards arising from the storage, handling, and use of hazardous substances, materials, and devices, and from conditions hazardous to life or property in the occupancy of buildings.

Chapter 1 of the Fire Code authorizes the Fire Chief to make and enforce such rules and regulations for the prevention and control of fires, fire hazard and hazardous materials incidents as may be necessary from time to time. Chapter 2 of the Fire Code includes definitions, specifically that high-rises are to be defined as, “every building of any type of construction or occupancy having floors located more than seventy-five (75) feet above the lowest floor level having building access (see CBC, Section 403.1.2) or the lowest level of Fire Department vehicle access, whichever is more restrictive, except buildings used as hospitals defined in section 1250 of the California Health and Safety Code.”

Chapter 5 includes requirements for access. Specifically, it requires a minimum width of 26 feet and 14 vertical feet for fire access roads and minimum turning radii of 28 feet, in addition to requirements for address numbers and key box maintenance. Finally, Chapter 5 concludes with specific requirements for emergency landing helicopter facilities on high-rise buildings. It includes requirements for approaches, landings, roof perimeter fencing, wind devices, standpipes, markings, and communication systems.

Chapter 9 establishes regulations for fire protection systems and equipment. It requires that all new commercial, industrial, and non-residential buildings that require two or more exits or that are greater than 3,000 square feet be protected by an automatic sprinkler system along with all new single-family residences greater than 4,000 feet and multi-family residential units. It also includes requirements for

outdoor systems, minimum water pressure for standpipe outlets, requirements for evacuation plans for buildings over three stories, control panels, and that all boats and marinas are equipped with a standpipe system.

Chapter 10 of the Fire Code further discusses access requirements. It requires protection of means of egress for fire department vehicles, along with requirements for roof access. Specifically, for buildings four stories or taller, it is required that one stairway extends to the roof unless the roof has a slope steeper than 33%.

Public safety goals and recommendations are also included in the Public Safety Element of the Long Beach General Plan (1975). The following goals and recommendations are applicable to the proposed project.

- **Development Goal 7.** Assure continued safe accessibility to all urban land uses throughout the City.
- **Development Goal 9.** Encourage development that would augment efforts of other safety-related Departments of the City (i.e., design for adequate access for firefighting equipment and police surveillance).
- **Protection Goal 1.** Use safety precautions as one means of preventing blight and deterioration.
- **Protection Goal 10.** Provide the maximum feasible level of public safety protection services.

b. Police

Chapter 2.15 of the LBMC identifies the permissible activities of the LBPD for which fees can be charged, including providing police reports, fees for fingerprinting, and training policies and standards consistent with Chapter 1 of the Penal Code. Chapter 2.15 also establishes the Reserve Corps under leadership of the police chief, and states that membership in the Reserve Corps is open to both men and women. Section 2.15.080 limits the use of the California Law Enforcement Telecommunications System (CLETS) to only the police chief.

Chapter 10.04 (Administration) of the LBMC establishes the Police Department's role in the administrative duties of the City. Specifically, Section 10.04.030 provides the Police Department with the ability, "to enforce all street traffic laws of this city, and all of the state vehicle laws applicable to street traffic in this city." In addition, the Development Services Department and parking control checkers are required to coordinate with the LBPD to issue notices for State Vehicle Code violations.

Chapter 18.22 of the LBMC refers to Police Facilities Impact Fees. The enactment of Government Code Sections 66001 through 66009 has authorized the City to enact development impact fees. A police facilities impact fee is imposed on residential and non-residential development for the purpose of assuring that the development pays its fair share of the costs required to support needed police facilities and related costs necessary to accommodate such development.

The public safety goals and recommendations from the Public Safety Element of the Long Beach General Plan (2002) listed under Fire would also apply to police protection services.

4.10.3 Impact Analysis

a. Methodology and Significance Thresholds

According to CEQA Guidelines Appendix G, impacts related to public services would be potentially significant if implementation of the proposed project would:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:
   a. Fire protection
   b. Police protection
   c. Schools
   d. Parks
   e. Other public facilities

Section 15, *Public Services* of the Initial Study (Appendix A) determined that the proposed project would have no impact on public services (i.e., schools, parks, libraries) other than fire and police protection because the proposed project does not have a residential component and would therefore not create any population growth resulting in an increase in demand for these public services. Impacts related to water and wastewater infrastructure and solid waste collection and disposal are discussed in Section 4.13, *Utilities and Service Systems*.

b. Project Impacts and Mitigation Measures

Threshold:	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

Impact PS-1 THE PROPOSED PROJECT WOULD INCREASE DEVELOPMENT INTENSITY ON THE PROJECT SITE, HOWEVER THE SITE IS ALREADY SERVED BY THE LBFD, IS CONSISTENT WITH THE LAND USE DESIGNATION AND ZONING OF THE SITE AND WOULD BE SUBJECT TO REVIEW BY THE LBFD AND ALL APPLICABLE REGULATIONS RELATING TO FIRE PROTECTION. THE PROPOSED PROJECT WOULD THEREFORE NOT SUBSTANTIALLY AFFECT THE LBFD'S SERVICE RATIOS, RESPONSE TIMES, OR OTHER PERFORMANCE OBJECTIVES TO THE EXTENT THAT IT WOULD REQUIRE NEW OR PHYSICALLY ALTERED FIRE PROTECTION FACILITIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Fire protection is provided by the Long Beach Fire Department (LBFD). The nearest fire stations to the project site are LBFD Station No. 13 at 2475 Adriatic Avenue approximately 2.4 miles south of the project site and Station No. 11 at 160 East Market Street approximately 3.2 miles northeast of the project site. As identified in Chapter 18.48 of the LBMC, the City of Long Beach has adopted the California Fire Code (2016 edition). The Fire Code contains regulations related to construction, maintenance and design of buildings and land uses. The proposed project would be required to adhere to all Fire Code requirements.

The proposed project would increase development intensity on the project site, which would incrementally increase demand for fire protection services. However, the proposed project is an infill development in the existing service area of the LBFD and is an allowed use under the land use designation and zoning of the project site, as described in the Initial Study (Appendix A) and in Section 4.8, *Land Use and Planning* of this EIR. Additionally, the project site is not located in a Fire Hazard Severity Zone and thus would not be exposed to an increased risk of wildfires. (Cal Fire 2022). Furthermore, adherence to the Public Safety Element of the Long Beach General Plan's Development Goals 7 and 9 and Protection Goals 1 and 10 listed above would ensure safety precautions and services. Therefore, the proposed project would not place an unanticipated burden on fire protection services and would not affect response times or service ratios such that new or expanded fire facilities would be needed. Additionally, the LBFD would review project activities and site plans prior to implementation of the proposed project. LBFD has adequate capabilities to serve the proposed project (LBFD 2023). Therefore, the project would not create the need for new or expanded fire protection facilities. Impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant, so no mitigation is required.

Threshold:	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

Impact PS-2 THE PROPOSED PROJECT WOULD INCREASE DEVELOPMENT INTENSITY ON THE PROJECT SITE BUT THE SITE IS ALREADY SERVED BY THE LBPD, IS CONSISTENT WITH THE LAND USE DESIGNATION AND ZONING OF THE SITE, AND WOULD BE SUBJECT TO REVIEW BY THE LBPD AND ALL APPLICABLE REGULATIONS RELATING TO POLICE PROTECTION. THE PROPOSED PROJECT WOULD THEREFORE NOT SUBSTANTIALLY AFFECT THE LBPD'S SERVICE RATIOS, RESPONSE TIMES, OR OTHER PERFORMANCE OBJECTIVES TO THE EXTENT THAT IT WOULD REQUIRE NEW OR PHYSICALLY ALTERED POLICE PROTECTION FACILITIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Police protection services in Long Beach are provided by the LBPD, as previously described in this section of the EIR. The proposed project would increase development intensity on the project site, which may incrementally increase demand for police protection services. According to the Long Beach Municipal Code (2019), the proposed project would be subject to a Police Facilities Impact Fee, which is determined by the gross floor area, type of use and location in a nonresidential development, and multiplying the same by the Police Facilities *Impact Fee* amount as established by the fee-setting resolution per square foot. Although the proposed project would increase development intensity on the project site and incrementally increase demand for police protection services, the proposed project is an infill development in the existing service area of the LBPD and is an allowed use under the land use designation and zoning of the project site, as described in the Initial Study (Appendix A) and in Section 4.8, *Land Use and Planning* of this EIR. Therefore, the proposed project would not place an unanticipated burden on police protection services and would not affect response times or service ratios such that new or expanded police protection facilities would be needed. Additionally, the LBPD would review project activities and site plans prior to implementation of the proposed project. For all the reasons discussed above, the proposed project would not cause substantially delayed response times, degraded service ratios or necessitate construction of new facilities. Impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant, so no mitigation is required.

4.10.4 Cumulative Impacts

a. Fire Protection

The geographic area for cumulative analysis of fire protection services is defined as the service territory for the LBFD. The City is almost fully built out, with most new development occurring as in-fill development. As discussed above, residential growth caused by the City's planned and pending projects would be well within future projections for the City contained in the City's General Plan and SCAG's 2008 Regional Comprehensive Plan (RCP), which is a long-term plan that guides the region's development with special attention given to housing and transportation. Additionally, the proposed project would not directly contribute to this residential growth because it includes no residences. The one nearby pending project in Long Beach described in Section 3.0, *Environmental Setting*, is a proposed office and warehouse project at 3901 Via Oro Avenue that has no residential or growth-inducing component and would, for the same reasons as the proposed project, also not produce a significant increase in demand for fire protection. The LBFD is currently meeting its response time goal of six minutes or less 90 percent of the time for the first arriving Emergency Medical System (EMS) unit in the area of the project site. The need for additional fire protection services associated with cumulative growth, if any, would be addressed through the annual budgeting process, when budget adjustments may be made to meet changes in service demand. Because population growth caused by the proposed project and other planned and pending projects would not create the need for new or expanded fire protection facilities, cumulative project impacts would be less than significant. Additionally, payment of Fire Facilities Impact Fees (City of Long Beach Municipal Code [LBMC] Chapter 18.23) would be used to finance any necessary improvements to current facilities, as required. Therefore, no significant cumulative impacts would occur and mitigation is not required.

b. Police Protection

The geographic area for cumulative analysis of police protection services is defined as the service territory for the LBPD. Long Beach is almost fully built out, with most new development occurring as in-fill development. As discussed in the cumulative projects list in Section 3, *Environmental Setting,* there are currently three other planned and pending projects in the City that include new residential units. The one nearby pending project in Long Beach described in Section 3.0, *Environmental Setting* (the 3901 Via Oro Avenue proposed office and warehouse project) has no residential or growth-inducing component and would, for the same reasons as with the proposed project, also not produce a significant increase in demand for police protection. The LBPD is currently meeting its response time goal of less than five minutes. The need for additional police protection services associated with cumulative growth, if any, would be addressed through the annual budgeting process, when budget adjustments may be made to meet changes in service demand. Because population growth caused by the proposed project and other planned and pending projects would not create the need for new or expanded police protection facilities, cumulative project impacts would be less than significant. Additionally, payment of Police Facilities Impact Fees (City of Long Beach Municipal Code [LBMC] Chapter 18.22) would be used to finance any necessary improvements to current facilities, as required. Therefore, no significant cumulative impacts would occur and mitigation is not required.

4.11 Transportation

This section analyzes the potential impacts of the proposed project on transportation, including its potential to conflict with transportation plans and its impact on vehicle miles traveled (VMT), project-related transportation hazards, and emergency access. The analysis in this section is based on a Traffic Impact Analysis (TIA) prepared for the proposed project by Fehr & Peers in August 2023. The full Fehr & Peers TIA is provided in Appendix D.

4.11.1 Setting

a. Existing Street Network

The scope of the TIA was developed by Fehr & Peers in coordination with the City of Long Beach and Rincon Consultants. The TIA analyzed regional roadways, major arterials, secondary arterials, and different roadway classifications for study area[1] roadways in the City of Long Beach and County of Los Angeles. The existing street network and TIA study intersections are shown in Figure 4.11-1.

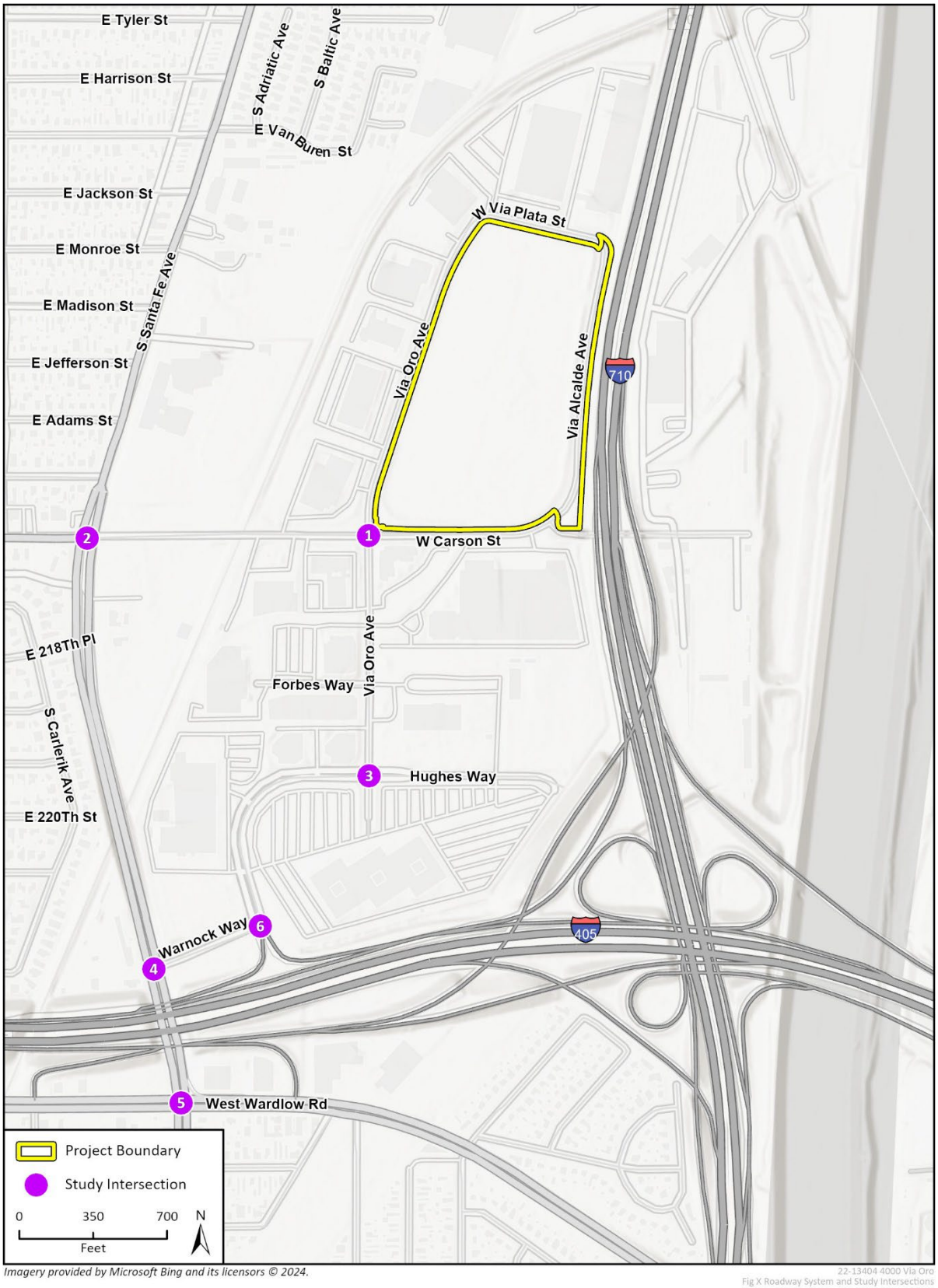
Regional access to the project site is provided by Interstate 405 (I-405) and Interstate 710 (I-710). Local access to the project site is provided by Via Oro Avenue, West Carson Street, Santa Fe Avenue, Warnock Way, and West Wardlow Road. The following discusses the roadways that would provide access to the project site and are most likely to experience increases in traffic volumes from the proposed project.

Interstate 405 (I-405) is a major north-south highway that extends for 72 miles through Los Angeles and Orange counties from Irvine at its southern end to San Fernando on its northern end. I-405 is also known as the northern portion of the San Diego Freeway. The number of lanes on I-405 varies between four and five travel lanes in each direction. The facility serves several major airports, including Los Angeles International Airport (LAX), Long Beach Airport (LGB), and Orange County's John Wayne Airport (SNA). Access to the project site from I-405 is provided via Del Amo Boulevard, Wardlow Road, and Warnock Way.

Interstate 710 (I-710) is a major north-south highway that extends for approximately 23 miles through Los Angeles County from the Port of Long Beach at its southern end to Alhambra/Pasadena to the north. I-710 is also known as the Long Beach Freeway. The number of lanes on I-710 varies between three and four travel lanes in each direction. The facility serves a large number of trucks and freight facilities, including the Ports of Los Angeles and Long Beach (or the San Pedro Bay Ports). Access to the project site from I-710 is provided via Warnock Way.

[1] See the TIA for the definition of "study area" as used in the TIA and in this section of the EIR.

Figure 4.11-1 Existing Roadway Network and Study Intersections



Via Oro Avenue is a north-south facility that runs immediately adjacent to the project site and serves as its western boundary. It provides north–south connectivity between the project site and Warnock Way via Hughes Way. It is primarily a four-lane divided roadway with a two-way-left-turn lane between West Via Plata Street and Carson Street, and a four-lane undivided roadway between Carson Street and Hughes Way. The posted speed limit on Via Oro Avenue is 35 miles per hour (mph). On-street parking is prohibited between Hughes Way and Carson Street. For segments between Carson Street and Via Plata Street, vehicles with dimensions not exceeding 85 inches in height, 80 inches in width, or 20 feet in length are permitted to park on-street. This restriction is in place to prevent larger vehicles from causing traffic disruptions and to ensure that parking spaces are available for standard-sized vehicles. There are no sidewalks on either side of Via Oro Avenue near the project site. Sidewalks are only provided between Hughes Way and Carson Street. Pedestrian crosswalks are generally provided at all signalized intersections. The nearest available crosswalk is provided at the intersection of Via Oro Avenue and Carson Street. The City's *Mobility Element* designates Via Oro Avenue as a Neighborhood Connector.

Carson Street is a four-lane undivided roadway with a raised median that changes to left-turn lanes between Santa Fe Avenue and Via Alcalde Avenue, and a four-lane undivided roadway between Alameda Street and Santa Fe Avenue. The land use on Carson Street east of Santa Fe Avenue is primarily residential. Carson Street is oriented in the east–west direction and provides connectivity between the city of Carson and the city of Long Beach. The posted speed limit on Carson Street is 35 mph. On-street parking of vehicles with dimensions not exceeding 85 inches in height, 80 inches in width, or 20 feet in length is generally permitted on both sides of the street. Sidewalks are generally provided on both sides of the roadway near the project site but are not provided on the project site side of the roadway between Via Alcalde Avenue and Via Oro Avenue. Pedestrian crosswalks are generally provided at all signalized intersections. The City's *Mobility Element* designates Carson Street as a Neighborhood Connector.

Santa Fe Avenue is a four-lane roadway with a raised median that alternates to left-turn lanes between Del Amo Boulevard and Carson Street, and a four-lane divided roadway between Carson Street and Wardlow Road. The posted speed limit on Santa Fe Avenue is 40 mph; the segments between Van Buren Street and Carson Street are adjacent to school zones with a speed limit of 25 mph. On-street parking is generally not permitted on both sides of the street. A bike lane begins from south of Wardlow Road along Santa Fe Avenue. Sidewalks are generally provided on both sides of the roadway near the project site. The City's *Mobility Element* designates Santa Fe Avenue as a Major Avenue.

Hughes Way is a minor neighborhood connector that connects Via Oro Avenue and Warnock Way with a distinct 90-degree horizontal curvature along its path between those two streets. It is a four-lane divided roadway south of the project site. Hughes Way provides connectivity between the project site and the I-405/I-710 on/off ramps. The posted speed limit is 35 mph eastbound at Via Oro Avenue. Before entering the curve, signage is posted advising drivers to approach it with a lower, 30 mph speed limit to ensure safe maneuvering. Sidewalks are provided only on one side of the roadway and a small segment is missing at the entrance of the Intex Recreation Corporation Warehouse at 1665 Hughes Way, which has a driveway located on the curve. Signals and a pedestrian crosswalk are installed at this intersection to ensure safety and efficiency. The City's *Mobility Element* designates Warnock Way as a Neighborhood Connector.

Warnock Way is a small six-lane undivided roadway that runs parallel with I-405. It provides east-west connectivity between Santa Fe Avenue, Hughes Way, and the I-405/I-710 on/off ramps. The posted speed limit on Warnock Way is 35 mph. On-street parking is generally permitted for small or medium vehicles on both sides of the street. However, truck parking is restricted on this road. Sidewalks are provided on both sides of the roadway. The City's *Mobility Element* designates Warnock Way as a Neighborhood Connector.

Wardlow Road is a four-lane divided, west/east running avenue, with a high-raised center median south of the project site. Wardlow Road provides east–west connectivity between State Route (SR) 47 (Alameda Street), LGB airport, and the I-405 on/off ramps. Wardlow Road's eastbound left-turn approach is channelized at Santa Fe Avenue. The posted speed limit on Wardlow Road is 35 mph. Sidewalks are generally provided on both sides of the roadway and pedestrian crosswalks are generally provided at all signalized intersections. The City's *Mobility Element* designates this part of Wardlow Road as a Major Avenue.

b. Truck Routes

Designated truck routes provide for the regulated movement of medium and heavy truck traffic through the city and minimize intrusion of truck traffic in sensitive areas, such as residential neighborhoods. The designation of truck routes is intended to direct truck traffic to those streets/freeways where they would cause the least amount of neighborhood intrusion and where noise, vibration, and other factors would have the least impact. Per the City's General Plan Mobility Element (Mobility 2035), designated truck routes near the project site are provided on Alameda Street (City of Carson), Willow Street east of I-710, Del Amo Boulevard (City of Carson), and Santa Fe Avenue south of the Pacific Coast Highway. Regional freeway access is provided at the intersection of Hughes Way & Warnock Way with the I-405 west on/off-ramp (TIA study location #6, see Figure 4.11-1). The I-710 freeway, which is predominately used by heavy duty trucks to transport goods to and from the San Pedro Bay ports, is the nearest regional truck route to the project site and trucks coming to and from the project site can access I-710 at the I-405 and I-710 interchange.

Based on City instruction, in instances when developments are not located immediately adjacent to a truck route, operators should take the most direct route between their trip origin/destination and the nearest truck route. Since the project site is not adjacent to a truck route, median and heavy trucks should use the nearest street to access regional freeways for freight travel.

c. Existing Transit Facilities

Existing transit services in the vicinity of the project site are described below.

Bus Transit

Long Beach Transit (LBT) provides public transit services in the vicinity of the proposed project area. The nearest bus stop can be found east of the project site at Carson Street and Via Oro Avenue. Near the proposed project, there are bus stops along Via Oro Avenue, Santa Fe Avenue, and Wardlow Road.

LBT routes that serve areas closest to the project site include the following:

- **Routes 192:** This route operates daily via Santa Fe Avenue, Carson Street, and Via Oro Avenue
- **Routes 4 (Carson), 191:** These routes operate daily via Santa Fe Avenue and Carson Street
- **Routes 8 (Carson):** This route operates daily via Wardlow Road

- **Route 405:** This route operates only on weekdays via I-405; it is the UCLA/Westwood Commuter Express bus route

These bus lines are shown on Figure 4.11-2. The nearest bus stop to the project site is located at Via Oro Avenue and Carson Street, near the southwestern corner of the project site, and is served by LBT Route 192.

LA Metro

Los Angeles (LA) Metro provides rail service in the vicinity of the project site. The LA Metro Rail A line originates in downtown Long Beach and provides a connection between downtown Long Beach and downtown Los Angeles.

- The Wardlow A line station is approximately 2 miles south of the project site at Pacific Place and Wardlow Road. There are 16 enclosed bike lockers available for rent at the station.
- The Del Amo A line station is approximately 1.5 miles north of the project site at Santa Fe Avenue and Del Amo Boulevard.

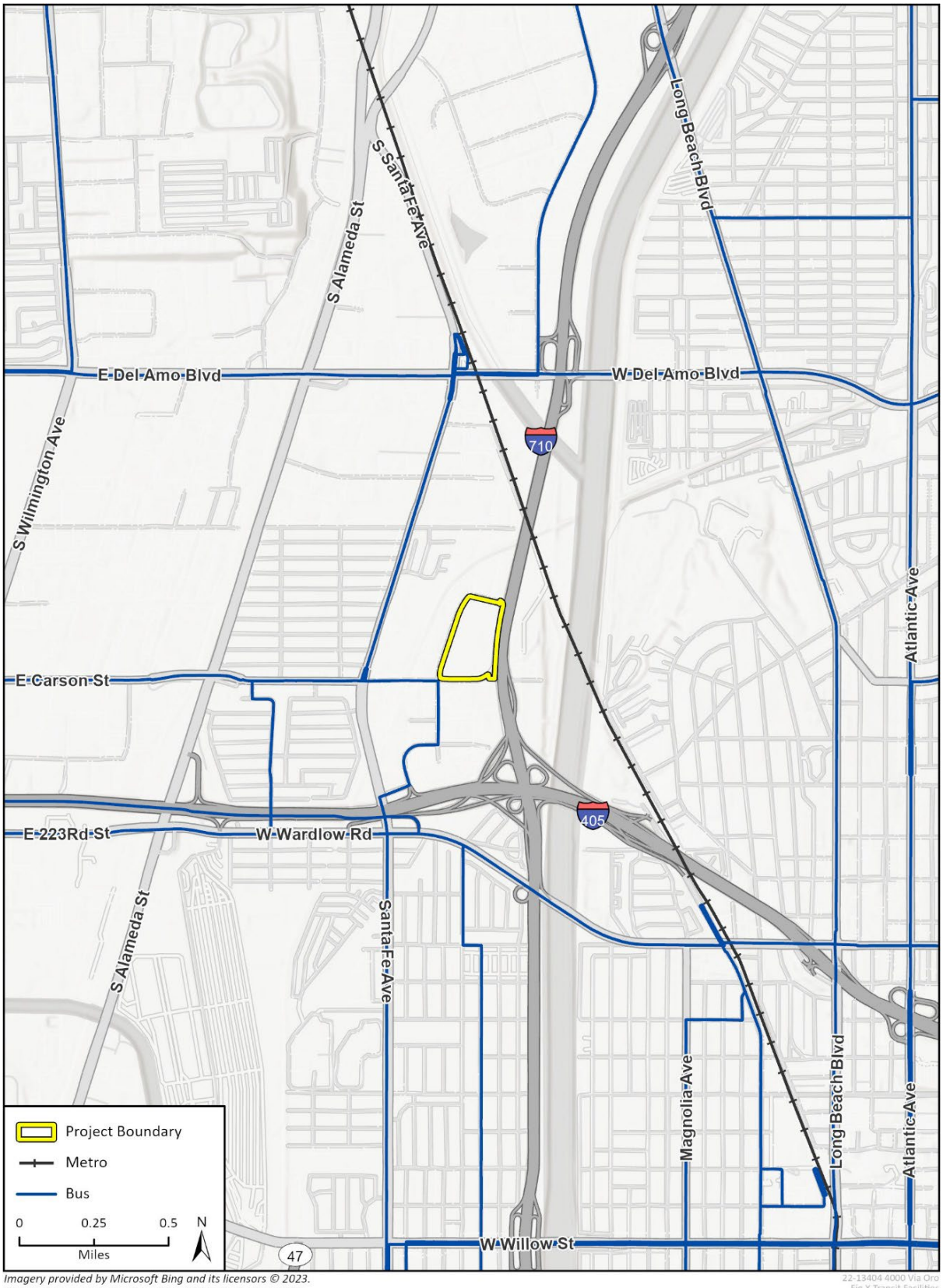
d. Pedestrian and Bicycle Facilities

The City of Long Beach CX3 Pedestrian Plan (described in Section 4.11.2.c, *Regional and Local Regulations*) found there is a lack of connectivity within the pedestrian environment as it relates to the design and conditions of public infrastructure in the City of Long Beach. The proposed project includes construction of a sidewalk connecting Via Plata Street and Carson Street for pedestrian use adjacent to the freeway right of way in a landscape buffer area outside the truck court security walls.

Long Beach has an extensive network of bicycle facilities consisting of 15 miles of bike routes, 19 miles of bike lanes, 29 miles of bike paths. The city also has priority “8-to-80” bicycle facilities. Per the City’s 2040 Bicycle Master Plan, these bikeways are designed so that anyone between the ages of 8 and 80 years can ride in the facility safely and comfortably. In addition to the on-street bicycle network, Long Beach has over 60 miles of off-street bike and pedestrian paths. In total, the city has approximately 156 miles of bikeways.

Bicycle facilities are divided into four classes of relative significance. Class I bikeways are bike paths that are physically separated from motor vehicles and offer two-way bicycle travel on a separate path. Class II bikeways are striped bike lanes on roadways that are marked by signage and pavement markings. Class III bikeways are bike routes and only have signs to help guide bicyclists on recommended routes to certain locations. Class IV bikeways, also known as cycle track or Class IV bikeways, are physically separated from motor vehicle traffic by a vertical element or barrier, such as a curb, bollards, or vehicle parking aisle. Currently, the project site is not served directly by any bicycle facilities, as shown in Figure 4.11-3.

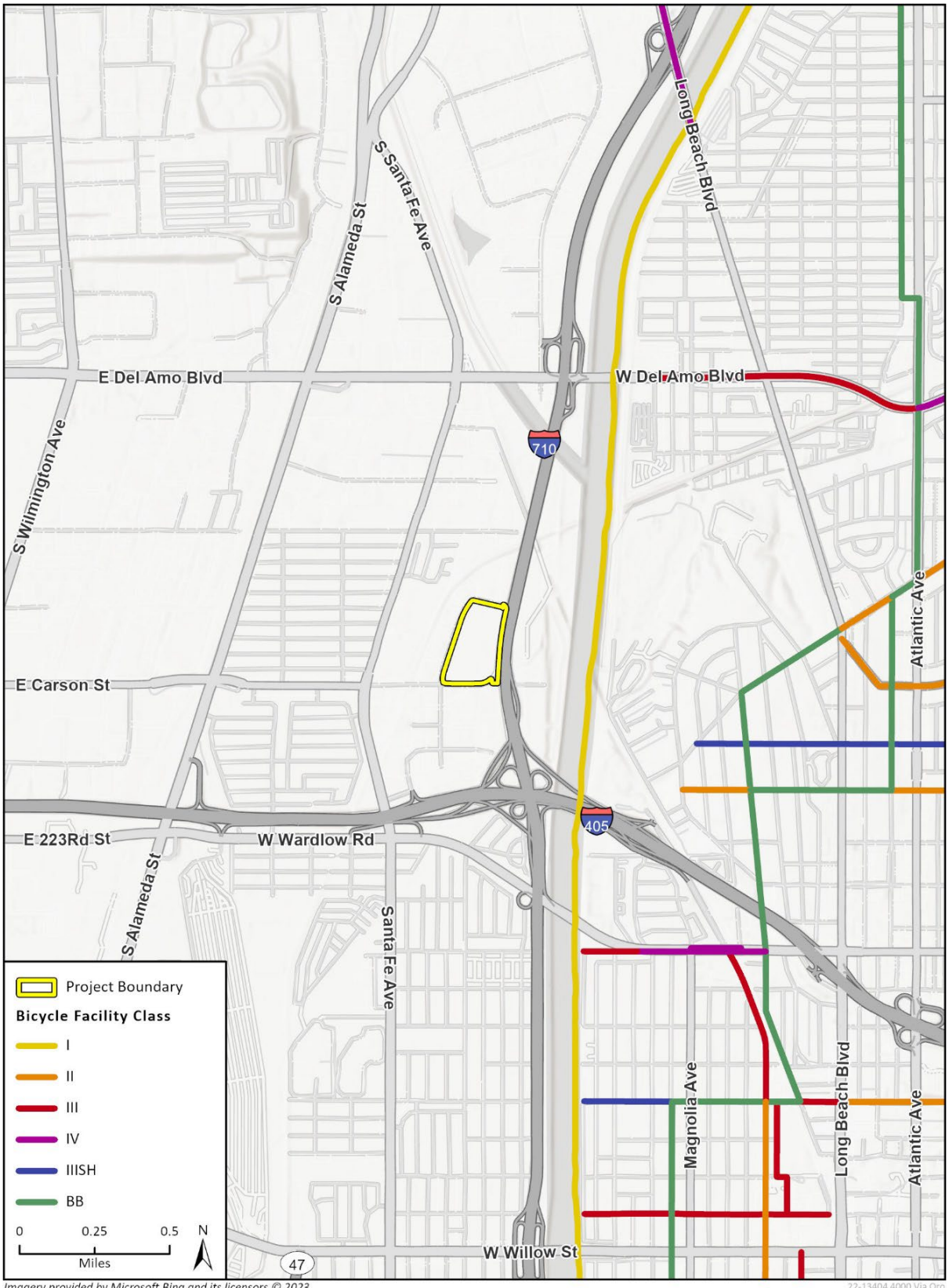
Figure 4.11-2 Existing Transit Facilities



Imagery provided by Microsoft Bing and its licensors © 2023.
Transit data provided by Open Street Map via Replica, 2022.

22-13404 4000 Via Oro
Fig X Transit Facilities

Figure 4.11-3 Existing City of Long Beach Bicycle Facilities



Imagery provided by Microsoft Bing and its licensors © 2023.
Bicycle facilities data provided by the City of Long Beach, 2022.

22-13404 4000 Via Oro
Fig X Bike Facilities

4.11.2 Regulatory Setting

a. Federal

The Americans with Disabilities Act (ADA) of 1990 prohibits discrimination toward people with disabilities and guarantees, among other things, that they have equal opportunities as the rest of society to become employed, purchase goods and services, and participate in government programs and services. The ADA includes requirements pertaining to transportation infrastructure. The Department of Justice's revised regulations for Titles II and III of the ADA, known as the 2010 ADA Standards for Accessible Designs, set minimum requirements for newly designed and constructed or altered State and local government facilities, public accommodations, and commercial facilities to be readily accessible to and usable by individuals with disabilities. These standards apply to accessible walking routes, curb ramps, and other facilities.

b. State

California Transportation Development Act

The Mills-Alquist-Deddeh Act (Senate Bill [SB] 325) (also known as the Transportation Development Act) was enacted in 1971 to improve public transportation services and encourage regional transportation coordination. This law provides funding to be allocated to transit and non-transit related purposes that comply with regional transportation plans. The Transportation Development Act provides two funding sources: 1) the Local Transportation Fund, which is derived from a 0.25 percent of the general sales tax collected statewide, and 2) the State Transit Assistance fund, which is derived from the statewide sales tax on diesel fuel.

Senate Bill 743

SB 743 was signed into law by Governor Brown in 2013 and tasked the State Office of Planning and Research (OPR) with establishing new criteria and metrics for identifying and mitigating transportation impacts under CEQA. In January 2018, OPR transmitted its proposed *CEQA Guidelines* implementing SB 743 to the California Natural Resources Agency for adoption, and in January 2019 the Natural Resources Agency finalized updates to the *CEQA Guidelines*, which incorporated SB 743 modifications and are now in effect. SB 743 changed the way that public agencies evaluate the transportation impacts of a project, recognizing that roadway congestion, while an inconvenience to drivers, is not itself an environmental impact. In addition to new exemptions for projects consistent with specific plans, the *CEQA Guidelines* replaced congestion-based metrics, such as auto delay and level of service, with vehicle miles traveled (VMT) as the basis for determining significant impacts, unless the Guidelines provide specific exceptions. VMT is generally defined as the total miles of travel by personal motorized vehicles a project is expected to generate in a day. When assessing a residential project, the project generated home-based VMT[2] is divided by the number of residents expected to occupy the project to determine the VMT per capita. For other types of land use projects, OPR identified VMT per capita, VMT per employee, and net VMT as new metrics for transportation analysis.

[2] Home-based VMT is the metric that represents the commute portion of the daily trips associated with project employees and is consistent with the City's TIA guidelines and CEQA methodology per SB 743.

CEQA Guidelines Section 15064.3

Originating from SB 743, Section 15064.3 of the *CEQA Guidelines* establishes VMT as the most appropriate measure of transportation impacts, shifting away from the level of service (LOS) analysis that evaluated a project's impacts on traffic conditions on nearby roadways and intersections. Section 15064.3 does the following:

- Identifies VMT (amount and distance of automobile traffic attributable to a project) as the most appropriate measure of transportation impacts
- Declares that a project's effect on automobile delay shall not constitute a significant environmental impact (except for projects increasing roadway capacity)
- Creates a rebuttable presumption of no significant transportation impacts for (a) land use projects within 0.5 mile of either an existing major transit stop or a stop along an existing high quality transit corridor, (b) land use projects that reduce VMT below existing conditions, and (c) transportation projects that reduce or have no impact on VMT
- Allows a lead agency to qualitatively evaluate VMT if existing models are not available
- Gives lead agencies discretion to select a methodology to evaluate a project's VMT but requires lead agencies to document that methodology in the environmental document prepared for the project

In December 2018, OPR issued a Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018). The technical advisory contains technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. The technical advisory suggests a significance threshold for VMT that is based on state mandated GHG emission reduction targets. The technical advisory recommends a quantitative per capita or per employee VMT that is 15 percent below that of existing development as a possible threshold of significance that would comply with the state's long-term climate goals.

c. Regional and Local Regulations

SCAG RTP/SCS

Every 4 years, SCAG updates its Regional Transportation Plan (RTP) for the 191-city SCAG region. Beginning with the 2012 RTP, SB 375 required the inclusion of a Sustainable Communities Strategy (SCS) in RTPs prepared by Metropolitan Planning Organizations such as SCAG. The key goal of the SCS is to achieve GHG emission reduction targets through integrated land use and transportation strategies. A key objective is for planners and developers to consider how land use patterns influence travel demand.

City of Long Beach General Plan Mobility Element (2013)

The City of Long Beach Mobility Element establishes the vision, goals, policies, and implementation measures required to improve and enhance the City's local and regional transportation networks, transforming Long Beach into a community that:

- Offers flexible, convenient, affordable, and energy-efficient transportation options
- Follows mobility practices that maintain and enhance safety while strengthening community, sense of place, urban design, and the natural environment
- Encourages the use of the most efficient and convenient mode of travel for any particular trip

- Embraces innovation and appropriate transportation technology
- Maintains professional standards in transportation planning and traffic engineering
- Integrates land use planning with a multimodal mobility network, providing people with options to choose various forms of convenient transportation
- Plans, maintains, and operates mobility systems consistent with the principles of complete streets, active living, and sustainable community design

The following specific Mobility of People (MOP) policies are included in the Mobility Element of the General Plan.

MOP Policy 1-1 To improve the performance and visual appearance of Long Beach's streets, design streets holistically using the "complete streets approach" which considers walking, those with mobility constraints, bicyclists, public transit users, and various other modes of mobility in parallel

MOP Policy 1-9 Increase mode shift of transit, pedestrians, and bicycles

MOP Policy 1-18 Focus development densities for residential and nonresidential uses around the eight Metro Blue Line[3] stations within City boundaries

MOP Policy 2-6 Ensure high-quality, on-street access to transit stops and stations

MOP Policy 2-18 Provide adequate sidewalk widths and clear paths of travel as determined by street type classification, adjoining land uses and expected pedestrian usage

MOP Policy 4-1 Consider effects on overall mobility and various travel modes when evaluating transportation impacts of new developments or infrastructure projects

MOP Policy 15-3 Consider pickup and delivery activities associated with various land uses when approving new development, implementing projects, and improving highways, streets, and bridges

City of Long Beach CX3 Pedestrian Plan (2017)

On February 7, 2017, the City Council adopted the Communities of Excellence in Nutrition, Physical Activity and Obesity Prevention (CX3) Pedestrian Plan as a technical appendix to the Long Beach Mobility Element. The CX3 Pedestrian Plan provides a framework for increasing access to healthy food options and encouraging physical activity by active transportation in 10 neighborhoods throughout Long Beach. The CX3 Pedestrian Plan does not have its own policies but instead connects policies from the MOP to each of the chapters in the CX3. For example, MOP policies 2-6 and 2-18 listed above are discussed in the CX3 Pedestrian Plan.

Safe Streets Long Beach Action Plan (2020)

Safe Streets Long Beach Action Plan strives to eliminate traffic-related fatalities and serious injuries in Long Beach by 2026 through multiple strategies, such as modifying streets to better serve vulnerable road users. The Safe Streets Long Beach Action Plan, which was adopted by City Council in July 2020, sets Long Beach on a clear path to eliminate traffic-related deaths and serious injuries citywide. The plan uses data analysis, community input, and best practice research to identify programs and policies that can make the streets safer for everyone.

[3] The Metro Blue Line has been renamed the Metro A Line.

City of Long Beach Bicycle Master Plan (2016)

The Bicycle Master Plan provides the following goals, policies, objectives, and standards regarding bicycle facilities within the City (City of Long Beach 2016). The following goals and objectives in the Bikeway and Pedestrian Master Plan pertain to increasing access for bicyclists and pedestrians:

Goal 1 Design bicycle facilities that are accessible and comfortable for people of all ages and abilities

Strategy 1: Develop a Comprehensive Bikeway Network

Strategy 2: Implement Citywide Bicycle Support Facilities

Strategy 3: Develop a Multimodal Transportation Network that Provides for Local and Regional Mobility to Meet the Challenges of Climate Change

Goal 3 Identify, develop, and maintain a complete and convenient bicycle network

Strategy 8: Enhance standard operating practices for bicycle facility maintenance

City of Long Beach Municipal Code

The City of Long Beach Municipal Code includes the following regulations pertaining to transportation that are relevant to this analysis.

Ordinance No. ORD-22-0033

Chapter 18.17 of the Long Beach Municipal Code imposes a Transportation Improvement Fee ("TIF" or "Impact Fee") upon certain new residential and commercial development within the City for purposes of assuring that the transportation level of service goals of the City as set forth in the Traffic Mitigation Program are met with respect to the additional demands placed on the transportation system by traffic generated from such development.

4.11.3 Impact Analysis

a. Methodology and Significance Thresholds

The analysis presented herein is derived primarily from the TIA prepared by Fehr & Peers for the proposed project in August 2023 (Appendix D). The TIA assesses the transportation impacts of the proposed project, including impacts to transit and active transportation facilities. The TIA also discloses the level of service, or traffic delay, that would result from the proposed project at nearby roadway intersections. Pursuant to Section 15064.3 of the *CEQA Guidelines*, traffic delay resulting from a land use project shall not constitute a significant environmental impact for purposes of CEQA. However, the TIA provides information on traffic delay that may result from the proposed project for informational purposes.

The Southern California Association of Government (SCAG) regional travel demand forecasting model that reflects the 2020 RTP/SCS was used for the VMT analysis. The proposed project VMT impact analysis methodology includes the following steps:

1. Determining the appropriate VMT metric and corresponding threshold of significance
2. Calculating the proposed project VMT
3. Determining the impact significance
4. Recommending appropriate VMT mitigation measures (if necessary)

For the purposes of SB 743, VMT to be analyzed is generated by on-road passenger vehicles, specifically cars and light-duty trucks.

To identify potential significant impacts of the proposed project, the following VMT metric was analyzed per the City's TIA guidelines:

- Daily home-based work VMT per employee. This metric represents the commute portion of the daily trips associated with the employees of the proposed project and is consistent with the City's TIA guidelines and CEQA transportation impact methodology per SB 743

Table 4.11-1 shows the corresponding thresholds of significance for the VMT metrics, according to the City's TIA guidelines. The regional area for the City of Long Beach is Los Angeles County. As calculated from the 2020 SCAG RTP/SCS Travel Demand Model, the existing (2023) regional average daily home-based work VMT per employee in Los Angeles County is 20.2.

Table 4.11-1 City of Long Beach VMT Thresholds of Significance

Metric	Description	VMT Threshold
Residential	15% below the existing (year 2023) regional average VMT per capita (or 19.2 X 0.85)	16.3
Office	15% below the existing (year 2023) regional average VMT per employee (or 20.2 X 0.85)	17.2
Retail	No net change in total VMT	Δ VMT = 0
Industrial (applicable standard for proposed project)	No net increase in total VMT if consistent with the General Plan Land Use Element 15% below the existing regional average VMT per employee if inconsistent with the General Plan Land Use Element	Δ VMT = 0; otherwise, 17.2
Other Land Uses	No net change in VMT per capita or VMT per employee if consistent with the General Plan Land Use Element; 15% below the regional average if seeking a General Plan Amendment	Δ VMT = 0; otherwise, 15% below regional average

Source: City of Long Beach TIA Guidelines, June 2020.

According to Appendix G of the *CEQA Guidelines*, impacts related to transportation and circulation from the proposed project would be significant if they would do any of the following:

1. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities
2. Conflict or be inconsistent with *CEQA Guidelines* section 15064.3, subdivision (b)
3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
4. Result in inadequate emergency access

The Initial Study (Appendix A) found that all the transportation-related impacts listed above were potentially significant and therefore all these issues are analyzed below.

For non-CEQA traffic impact analysis (e.g. level of service impacts) please refer to Section 1.1.2 of the TIA (Appendix D). Please refer to Section 4.11.12.b for additional information regarding non-CEQA traffic impact analysis. As stated therein, SB 743 changed the way that public agencies evaluate the transportation impacts of a project, recognizing that roadway congestion, while an inconvenience to drivers, is not itself an environmental impact.

b. Impacts and Mitigation Measures

Threshold 1:	Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Impact TRA-1 BASED ON AN EVALUATION OF APPLICABLE POLICY DOCUMENTS SUCH AS THE RTP/SCS, LONG BEACH GENERAL PLAN, AND LONG BEACH MUNICIPAL CODE, THE PROPOSED PROJECT WOULD NOT CONFLICT WITH A PROGRAM, PLAN, ORDINANCE OR POLICY ADDRESSING THE CIRCULATION SYSTEM, INCLUDING TRANSIT, ROADWAY, BICYCLE, AND PEDESTRIAN FACILITIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Under CEQA, a project is considered consistent with an applicable plan if it is consistent with the overall intent of the plan and would not preclude the attainment of its primary goals. A project does not need to be in perfect conformity with each and every policy. Any inconsistency with an applicable plan, ordinance, or policy is only a significant impact under CEQA if the plan, ordinance, or policy was adopted for the purpose of avoiding or mitigating an environmental effect and if the inconsistency itself would result in a direct physical impact on the environment.

This evaluation was conducted by reviewing regional documents and City documents such as the SCAG *Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS), Long Beach *Mobility Element 2035*, *Safe Streets Action Plan*, and municipal code sections. Table 4.11-2 summarizes consistency with the applicable plans and their respective policies related to transportation.

As shown in Table 4.11-2, no conflicts between the proposed project and the plans analyzed in Table 4.11-2 were identified. The project study area is serviced by Long Beach Transit lines 191, 192, and 4, which travel along Santa Fe Avenue, Carson Street, and Via Oro Avenue. The proposed project design and features would not preclude City action to fulfill or implement projects associated with these transit routes. Additionally, the proposed project is not expected to negatively affect or degrade transit modes or facilities within the study area, including the existing transit stops on Santa Fe Avenue and Carson Street, and the Del Amo and Wardlow Metro A (Blue) Line stations. Traffic related to the proposed project is not expected to add substantial automobile delay to these intersections in the AM and PM peak hours.

Therefore, impacts to programs, plans, ordinances, or policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities would be less than significant and no mitigation would be required.

Mitigation Measures

This impact would be less than significant, so no mitigation is required.

Table 4.11-2 Programs, Plans, Ordinances, and Policies Conflicts Review

Plans	Description	Relevant Goals, Policies and/or Objectives	Conflicts Discussion
Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy	Every 4 years, SCAG updates its RTP for the 191-city SCAG region. Beginning with the 2012 RTP, SB 375 required the inclusion of a SCS in RTPs prepared by Metropolitan Planning Organizations such as SCAG. The key goal of the SCS is to achieve GHG emission reduction targets through integrated land use and transportation strategies. A key objective is for planners and developers to consider how land use patterns influence travel demand.	The 2020-2045 RTP/SCS builds upon the progress made through implementation of the 2016-2040 RTP/SCS and includes 10 goals focused on promoting economic prosperity, improving mobility, protecting the environment, and supporting healthy/complete communities. The SCS implementation strategies include focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, and supporting implementation of sustainability policies. The SCS establishes a land use vision of center focused placemaking, concentrating growth in and near Priority Growth Areas, transferring of development rights, urban greening, creating greenbelts and community separators, and implementing regional advance mitigation (SCAG 2020).	As part of the transportation modeling and analysis for the RTP/SCS, SCAG prepares population and employment growth projections by Transportation Analysis Zone (TAZ) and creates a future transportation network that represents the changes to the existing network based on the regional project list. TAZs are geographic polygons representing communities and neighborhoods at a sub-city level of detail. The proposed project was compared against the RTP/SCS forecasts and network changes included in the 2020 SCAG RTP model. Given that the proposed project would not result in any changes to the existing transportation network and would involve development of an industrial use that would not include housing, the proposed project would not increase housing density in urban infill areas near transit and would not conflict with the RTP/SCS.
City of Long Beach Mobility Element 2035	The Long Beach General Plan Mobility Element was adopted in October 2013. It is the City's document to guide the operations and design of streets and other public rights of way. It lays out a vision for improving the way people, goods, and resources move from place to place. The Mobility Element addresses all modes of travel, and in addition to improving mobility and accessibility opportunities, the plan is about enhancing the quality of life for today's generation, as well as generations to come.	1) Goal 1 – Create a safe, efficient, balanced, and multimodal mobility network. 2) Goal 2 – Maintain and Enhance Air, Water, and Ground Transportation Capacity. 3) Goal 3 – Lead the Region by Example with Innovative and Experimental Practices.	The proposed project won't increase residential density in an area with industrial land use and amenities. The proposed project would not preclude the City of Long Beach from implementing the goals of the Mobility Element, would provide street level access to proposed uses, and on-site parking. The construction of a sidewalk connecting Via Plata Street and Carson Street for pedestrian use would also ensure pedestrian safety and mobility. Thus, the proposed project would not conflict with Mobility Element goals related to transportation.

Plans	Description	Relevant Goals, Policies and/or Objectives	Conflicts Discussion
Long Beach Bicycle Master Plan	The City of Long Beach Bicycle Master Plan is a supplement to the Mobility Element and was updated December 2016. The Plan expands upon the Mobility Element of the Long Beach General Plan by providing further details on bicycle planning and design. It also recommends a series of projects and programs to be implemented by Long Beach in the next few decades.	1) Goal 3 – Identify, develop, and maintain a complete and convenient bicycle network.	The proposed project would not conflict with the Bicycle Master Plan because it would not make any changes to the existing bicycle infrastructure surrounding the project site. It would not preclude the installation of any planned bicycle facilities in the City of Long Beach.
Safe Streets Long Beach Action Plan[4]	Safe Streets Long Beach Action Plan strives to eliminate traffic-related fatalities and serious injuries in Long Beach by 2026 through multiple strategies, such as modifying streets to better serve vulnerable road users. The plan uses data analysis, community input, and best practice research to identify programs and policies that can make the streets safer for everyone.	In 2016, Long Beach's City Council approved a Vision Zero initiative with the goal of eliminating traffic fatalities and serious injuries among all road users by 2026. ▪ Keystone Action #1: Dedicate Resources to Vision Zero.	The proposed project meets the goals and objectives set forth in the Vision Zero plan. The proposed project is not located on a High Injury Corridor (HIC) or next to any High Injury Intersections, as identified in the plan. No specific Vision Zero projects are planned around the project site, and the proposed project would not conflict with implementation of future Vision Zero projects in the public right-of-way.

Source: *Fehr & Peers, 2023*.

[4] City of Long Beach, Safe Streets Action Plan, a Vision Zero Project, adopted July 2020.

Threshold 2: Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Impact TRA-2 THE PROPOSED PROJECT'S HOME-BASED WORK VMT WOULD BE LESS THAN THE COUNTY'S BASELINE HOME-BASED WORK VMT, THEREFORE, THE PROPOSED PROJECT WOULD NOT CONFLICT WITH CEQA GUIDELINES SECTION 15064.3(B). IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The methodology used to estimate the proposed project's daily home-based work VMT per employee follows the City's TIA guidelines. Home-based work VMT per employee for the proposed project is based on VMT estimates using the 2045 SCAG Travel Demand Model based on the 2020 RTP/SCS. The commute portion of the employee trip is represented in the model as the home-based work (attraction) trip for the proposed project's Traffic Analysis Zone (TAZ).[5] Table 4.11-3 shows the home-based work VMT per employee generated by the proposed project in the Project Opening Year (2027).

Table 4.11-3 Proposed Project Home-Based Work Daily VMT Per Employee

	Project Area TAZ	
Variable	2027 No Project	2027 Plus Project
Number of Employees	4,392	4,640
Home-Based Work VMT	86,751	87,267
Home-Based Work VMT per Employee	19.8	18.8

The proposed project's home-based work VMT per employee was also compared to the appropriate significance threshold identified in the City's TIA guidelines. The proposed project would be developed within the West Long Beach Business Parks Planned Development District (PD-26) area and is consistent with the Long Beach Land Use Element. As shown in Table 4.11-1, because the proposed project is consistent with the General Plan, it would result in a less than significant impact if it produces no net increase in VMT. Because home-based work VMT per employee in the 2027 Plus Project scenario is 18.8, which is less than both the home-based work VMT per employee of 19.8 in the 2027 No Project scenario and the County's baseline VMT of 20.2 (see Table 4.11-1), the proposed project would produce no net increase in VMT. Therefore, the proposed project would result in a less than significant impact.

Mitigation Measures

This impact would be less than significant, so no mitigation is required.

[5] A Traffic Analysis Zone (TAZ) is the unit of geography most commonly used in conventional travel demand models. TAZs represent the spatial distribution of trip origins and destinations, as well as the population, employment and other spatial attributes that may influence travel demand.

Threshold 3:	Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

Impact TRA-3 THE PROPOSED PROJECT'S DRIVEWAYS WOULD BE PERPENDICULAR TO THE PUBLIC RIGHT-OF-WAY AND WOULD BE ADEQUATELY SPACED FROM EXISTING INTERSECTIONS, AND THE PROPOSED PROJECT WOULD NOT INTRODUCE INCOMPATIBLE USES TO THE AREA. THEREFORE, THE PROPOSED PROJECT WOULD NOT SUBSTANTIALLY INCREASE HAZARDS DUE TO A DESIGN FEATURE (E.G., SHARP CURVES OR DANGEROUS INTERSECTIONS) OR INCOMPATIBLE USES (E.G., FARM EQUIPMENT). IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Impacts regarding the potential increase of hazards due to a geometric design feature generally relate to the design of access points to and from a project site. Impacts can be related to vehicle/vehicle, vehicle/bicycle, or vehicle/pedestrian conflicts. These conflicts may be created by the driveway configuration or through the placement of project driveway(s) in areas of inadequate visibility, adjacent to bicycle or pedestrian facilities, or too close to busy or congested intersections. These impacts are typically evaluated for permanent conditions after project completion but can also be evaluated for temporary conditions during project construction.

Based on the April 2020 Traffic Feasibility Study (Appendix N)[6], the proposed project would not generate average daily traffic volumes that exceed the capacity on adjacent streets providing access to the project site. As shown in the project site plan (see Figure 2-4 in Section 2, *Project Description* of this EIR), the proposed project's driveways would be perpendicular to the public right-of-way and would be adequately spaced from existing intersections. Additionally, the proposed project would not be incompatible with the surrounding community because it would introduce uses to the project site that are already present in the area. Therefore, the proposed project would result in a less than significant impact related to hazards resulting from geometric design features or incompatible uses.

Mitigation Measures

This impact would be less than significant, so no mitigation is required.

Threshold 4:	Would the project result in inadequate emergency access?

Impact TRA-4 THE PROJECT SITE IS WELL-SERVED BY EMERGENCY SERVICES AND THE PROPOSED PROJECT DOES NOT INCLUDE ANY FEATURES THAT WOULD INHIBIT EMERGENCY ACCESS TO THE PROJECT SITE OR NEARBY AREAS. THEREFORE, THE PROPOSED PROJECT WOULD NOT RESULT IN INADEQUATE EMERGENCY ACCESS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The proposed project would include two driveways for emergency access. The proposed project is located approximately 2.5 miles from the existing Los Angeles County Fire Department Station 127. A new fire station (Fire Department Station 9) is currently planned for construction less than one mile from the project site at 4101 Long Beach Boulevard (see Project No. 7 in Table 3-1, *Cumulative Projects List* in Section 3, *Environmental Setting* of this EIR). While the proposed project is expected to increase the number of vehicles on nearby roadways, emergency responders have sirens and are able to bypass intersection queues and utilize two-way left-turn lanes. The proposed project is well-served by nearby emergency service providers and grants adequate emergency vehicle access to, from, and

[6] The Traffic Feasibility Study completed in April 2020 by David Evans and Associates, Inc. analyzed the closure of Via Alcalde Avenue with development of the proposed project, and its impact on local circulation at the following intersections: Santa Fe Avenue and West Carson Street; Via Oro Avenue and West Carson Street; and Via Oro Avenue and Hughes Way. It was not a traffic study as defined under CEQA for the purpose of procuring entitlements for the proposed project; rather it was a precursor to subsequent environmental review required of the proposed project.

within the project site. Additionally, the proposed project does not propose any features that would inhibit emergency access to nearby areas. Therefore, the proposed project would have a less than significant impact regarding emergency access.

Mitigation Measures

This impact would be less than significant, so no mitigation is required.

4.11.4 Cumulative Impacts

The geographic scope for cumulative transportation impacts is Los Angeles County. This geographic scope is appropriate because transportation facilities, including roadways, transit, bicycle, and pedestrian facilities, provide regional access to the project area and common destinations, including commercial areas, office/employment areas, and recreational facilities. Cumulative buildout in this region, including projects listed in Table 3-1 and shown on Figure 3-1 in Section 3, *Environmental Setting* of this EIR, would have the potential to adversely impact transportation.

Cumulative development projects, including the proposed project, would be required to comply with local regulations and policies related to public transit, bicycle, pedestrian, and air traffic facilities. Individual planned and pending projects in Long Beach would be assessed under CEQA for consistency with existing plans and programs related to pedestrian, transit, and roadway policies, which would ensure no significant cumulative impact would occur. Cumulative impacts to these facilities would not be significant, and the proposed project would not result in a considerable contribution to this cumulative impact, for the reasons discussed below.

OPR provides the following guidance regarding cumulative impacts analysis and VMT:

> When using an absolute VMT metric, i.e., total VMT (as recommended below for retail and transportation projects), analyzing the combined impacts for a cumulative impacts analysis may be appropriate. However, metrics such as VMT per capita or VMT per employee, i.e., metrics framed in terms of efficiency (as recommended below for use on residential and office projects), cannot be summed because they employ a denominator. A project that falls below an efficiency-based threshold that is aligned with long-term environmental goals and relevant plans would have no cumulative impact distinct from the project impact. Accordingly, a finding of a less-than-significant project impact would imply a less than significant cumulative impact, and vice versa (OPR 2018).

Cumulative projects may result in increased VMT in the region. Depending on specific development types and exact TAZ locations, cumulative VMT impacts would be significant. As described above in Impact TRA-2 in Section 4.11.3, *Impact Analysis*, the proposed project would result in less than significant impacts related to VMT. Cumulative VMT analysis results are provided in Table 4.11-4.

Table 4.11-4 Project Work VMT Per Employee in Cumulative Scenario

	Project Located Traffic Analysis Zone (TAZ)	
Variable	**2045 No Project**	**2045 Plus Project**
Number of Employees	4,394	4,642
Home-Based Work VMT	77,117	80,296
Home-Based Work VMT per Employee	17.6	17.3

Source: *Fehr & Peers, 2023*.

As shown in Table 4.11-4 home-based VMT per employee in the 2045 Plus Project scenario is lower than the 2045 No Project scenario. Therefore, because home-based VMT per employee would be reduced under the Plus Project scenario compared to the No Project scenario, the proposed project's cumulative contributions to VMT are less than significant.

Cumulative development that includes modifications to public rights-of-way would be required to comply with appropriate regulations and design standards set forth by the City's applicable plans, programs, and policies. The cumulative impact from roadway hazards would therefore not be significant, and the proposed project would not result in a considerable contribution to this cumulative impact.

Cumulative development would be required to meet all applicable state and local codes and ordinances related to fire protection, including emergency access. The cumulative impact to emergency access would therefore not be significant, and the proposed project would not result in a considerable contribution to this cumulative impact.

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4.12 Tribal Cultural Resources

This section analyzes the proposed project's potential impacts related to tribal cultural resources. Tribal cultural resources are those resources identified by California Native American tribes in consultation with lead agencies during tribal consultation (also referred to as AB 52 consultation). The analysis in this section is based on the results of the City of Long Beach's AB 52 consultation as well as the *Intex Southbay Logistics Center Cultural Resources Assessment Report* prepared for the project by Rincon Consultants, Inc. in August 2023. The full report is provided in Appendix H of this EIR.

4.12.1 Setting

a. Regional Tribal Cultural Resources

The project site lies in the traditional territory of the Tongva/Gabrieleño. The name "Gabrieleño" denotes those people who were administered by the Spanish from the San Gabriel Mission. It includes people from the Gabrieleño area proper, as well as other social groups nearby (Kroeber 1925, Plate 57, Bean and Smith 1978: 538). The term Gabrieleño was imposed upon the Tribe by Spanish Missionaries. Thus, descendants have chosen to use their original name, Tongva (Welch 2006). This term is used in the remainder of this section to refer to the pre-contact inhabitants of the Los Angeles Basin and their descendants. Archaeological evidence points to the Tongva arriving in the Los Angeles Basin sometime around 500 BC, and the Tongva note their presence in the area going back thousands of years (Villa 2017). Today, the Tongva people are active in protecting their Tribal cultural resources in the greater Los Angeles Basin and three Channel Islands: present-day San Clemente, San Nicolas, and Santa Catalina.

The Tongva language belongs to the Takic branch of the Uto-Aztecan language family, which can be traced to the Great Basin region (Mithun 2001). This language family includes dialects spoken by the nearby Juaneño and Luiseño to the southeast, the Serrano and Cahuilla to the northeast, and the Tataviam to the northwest. Yet, it is considerably different from the Chumash people living to the northwest and the Diegueño people (including the Ipai, Tipai, and Kumeyaay) to the south.

The Tongva established large, permanent villages in the fertile lowlands along rivers and streams, and in sheltered areas along the coast. A total tribal population is estimated to have been at least 5,000 in 1770 (Bean and Smith 1978: 540), but recent ethnohistoric work suggests a number closer to 10,000 (O'Neil 2002). Political organization followed a patrilocal and patrilineal pattern. Typically, the oldest son would lead a family. Chieftainship was also passed down patrilineally. A Chari, or chief of a village or political grouping, was separate from religious leadership (King 2011).

At the time of Spanish contact, the basis of Tongva religious life was the Chinigchinich cult, centered on the last of a series of heroic mythological figures. Chinigchinich gave instruction on laws and institutions, and taught people how to dance, the primary religious act for this society. He later withdrew into heaven, where he rewarded the faithful and punished those who disobeyed his laws (Kroeber 1925: 637–638). The Chinigchinich religion seems to have been relatively new when the Spanish arrived. It was spreading south into the Southern Takic groups as Christian missions were being built. Elements of Chinigchinich beliefs suggest it was a syncretic mixture of Christianity and native religious practices (McCawley 1996: 143–144).

Houses constructed by the Tongva were large, circular, domed structures made of willow poles, thatched with tule and sheltered up to 50 people (Bean and Smith 1978). Other structures served as sweathouses, menstrual huts, ceremonial enclosures, and probable communal granaries. Cleared

fields for races and games, such as lacrosse and pole throwing, were created adjacent to Tongva villages (McCawley 1996: 27).

The Tongva subsistence economy was centered on gathering and hunting. The surrounding environment was rich and varied, and the Tribe exploited the mountains, foothills, valleys, deserts, including riparian and estuarine areas, as well as open and rocky coastal ecological niches. Like most Native Californians, acorns were the staple food. By the time of the early Intermediate Period, acorn processing was an established industry. Acorns were supplemented by the roots, leaves, seeds, and fruits of a wide variety of flora (e.g., islay, cactus, yucca, sages, and agave). Freshwater and saltwater fish, shellfish, birds, reptiles, insects, and large and small mammals were also consumed (Kroeber 1925: 631–632, Bean and Smith 1978: 546, McCawley 1996: 119–123, 128–131).

The Tongva used a wide variety of tools and implements to gather food resources. These included the bow and arrow, traps, digging sticks, nets, blinds, throwing sticks and slings, spears, harpoons, and hooks. The Tongva made oceangoing plank canoes (known as a ti'at) capable of holding six to 14 people and used for fishing, travel, and trade between the mainland and the Channel Islands. Tule reed canoes were employed for near-shore fishing (McCawley 1996: 117–127). Tongva people processed food with a variety of tools, including hammerstones and anvils, mortars and pestles, manos and metates, strainers, leaching baskets and bowls, knives, bone saws, and wooden drying racks. Food was consumed from a variety of vessels. Catalina Island steatite was used to make ollas and cooking vessels (Kroeber 1925: 629, McCawley 1996: 129–138).

Deceased Tongva were either buried or cremated. Inhumation was more common on the Channel Islands and the neighboring mainland coast, and cremation was more predominate on the remainder of the coast and in the interior (Harrington 1942, McCawley 1996: 157). At the behest of the Spanish missionaries, cremation essentially ceased during the Post-Contact Period (McCawley 1996: 157).Historical Overview

The post-contact history of California is generally divided into three timespans: the Spanish period (1769–1822), the Mexican period (1822–1848), and the American period (1848–present). Each of these periods is briefly described in Section 4.3, *Cultural Resources* of this EIR.

b. AB 52 Consultation

As described in 4.12.2, *Regulatory Setting*, AB 52 requires consultation with Native American tribes. Tribal notification letters were sent via certified mail to eleven California Native American Tribes that have requested to be included on the lead agencies tribal notification list on January 11, 2023. The City received two requests for consultation for the proposed project: one from the Gabrielino Tongva Indians of California Tribal Council and one from the Gabrieleño Band of Mission Indians-Kizh Nation. The City met with the Gabrielino Tongva Indians of California Tribal Council on January 31, 2023 and the Gabrieleño Band of Mission Indians-Kizh Nation on February 2, 2023. Consultation concluded with both tribes on February 16, 2023 with agreements on proposed mitigation measures, which are included in this section of the EIR as Mitigation Measures TCR-1 and TCR-2.

4.12.2 Regulatory Setting

a. Federal Regulations

National Historic Preservation Act

Most regulations at the Federal level stem from the National Environmental Policy Act (NEPA) and historic preservation legislation such as the National Historic Preservation Act (NHPA) of 1966, as amended. NHPA established guidelines to "preserve important historic, cultural, and natural aspects of our national heritage, and to maintain, wherever possible, an environment that supports diversity and a variety of individual choice." The NHPA includes regulations specifically for Federal landholding agencies, but also includes regulations (Section 106) which pertain to all projects that are funded, permitted, or approved by any Federal agency and which have the potential to affect cultural resources. All projects that are subject to NEPA are also subject to compliance with Section 106 of the NHPA and NEPA requirements concerning cultural resources. Section 106 is the only federal environmental review process which requires consultation on effects to historical properties and affords tribal nations the opportunity to inform federal decisions that may affect historical native properties. Provisions of NHPA establish a National Register of Historic Places (The National Register) maintained by the National Park Service, the Advisory Councils on Historic Preservation, State Historic Preservation Offices, and grants-in-aid programs.

American Indian Religious Freedom Act and Native American Graves and Repatriation Act

The American Indian Religious Freedom Act recognizes that Native American religious practices, sacred sites, and sacred objects have not been properly protected under other statutes. It establishes as national policy that traditional practices and beliefs, sites (including right of access), and the use of sacred objects shall be protected and preserved. Additionally, Native American remains are protected by the Native American Graves and Repatriation Act of 1990.

Other Federal Legislation

Historic preservation legislation was initiated by the Antiquities Act of 1966, which aimed to protect important historic and archaeological sites. It established a system of permits for conducting archaeological studies on Federal land, as well as setting penalties for noncompliance. This permit process controls the disturbance of archaeological sites on Federal land. New permits are currently issued under the Archeological Resources Protection Act (ARPA) of 1979. The purpose of ARPA is to enhance preservation and protection of archaeological resources on public and Native American lands. The Historic Sites Act of 1935 declared that it is national policy to “Preserve for public use historic sites, buildings, and objects of national significance.”

b. State Regulations

Senate Bill 18

Senate Bill (SB) 18, authored by Senator John Burton and signed into law by Governor Arnold Schwarzenegger in September 2004, requires local (city and county) governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places (“cultural places”) through local land use planning. This legislation, which amended §65040.2, §65092, §65351, §65352, and §65560, and added §65352.3, §653524, and §65562.5 to the Government Code; also

requires the Governor's Office of Planning and Research (OPR) to include in the General Plan Guidelines advice to local governments on how to conduct these consultations. The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. These consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code §65300 et seq.) and specific plans (defined in Government Code §65450 et seq.).

Assembly Bill 52

AB 52 expanded CEQA by defining a new resource category: tribal cultural resources. AB 52 establishes that "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (Public Resources Code [PRC] §21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC §21084.3). PRC §21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe," and meets either of the following criteria:

a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC §5020.1(k)
b. 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 PRC §5024.1. In applying the criteria set forth in subdivision (c) of PRC §5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe

To recognize California Native American tribal sovereignty and the unique relationship of California local governments and public agencies with California Native American tribal governments, and to respect the interests and roles of project proponents, AB 52 states its intent to accomplish all of the following:

(1) Recognize that California Native American prehistoric, historic, archaeological, cultural, and sacred places are essential elements in tribal cultural traditions, heritages, and identities.
(2) Establish a new category of resources in CEQA called "tribal cultural resources" that considers the tribal cultural values in addition to the scientific and archaeological values when determining impacts and mitigation.
(3) Establish examples of mitigation measures for tribal cultural resources that uphold the existing mitigation preference for historical and archaeological resources of preservation in place, if feasible.
(4) Recognize that California Native American tribes may have expertise with regard to their tribal history and practices, which concern the tribal cultural resources with which they are traditionally and culturally affiliated. Because CEQA calls for a sufficient degree of analysis, tribal knowledge about the land and tribal cultural resources at issue should be included in environmental assessments for projects that may have a significant impact on those resources.
(5) In recognition of their governmental status, establish a meaningful consultation process between California Native American tribal governments and lead agencies, respecting the interests and roles of all California Native American tribes and project proponents, and the

level of required confidentiality concerning tribal cultural resources, at the earliest possible point in CEQA environmental review process, so that tribal cultural resources can be identified, and culturally appropriate mitigation and mitigation monitoring programs can be considered by the decision-making body of the lead agency.

(6) Recognize the unique history of California Native American tribes and uphold existing rights of all California Native American tribes to participate in, and contribute their knowledge to, the environmental review process pursuant to CEQA.

(7) Ensure that local and tribal governments, public agencies, and project proponents have information available, early in CEQA environmental review process, for purposes of identifying and addressing potential adverse impacts to tribal cultural resources and to reduce the potential for delay and conflicts in the environmental review process.

(8) Enable California Native American tribes to manage and accept conveyances of, and act as caretakers of, tribal cultural resources.

(9) Establish that a substantial adverse change to a tribal cultural resource has a significant effect on the environment.

AB 52 establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. AB 52 requires that lead agencies "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed in the jurisdiction of the lead agency.

4.12.3 Impact Analysis

a. Significance Thresholds

The impacts related to tribal cultural resources resulting from the implementation of the proposed project would be considered significant if the project would cause:

1. A substantial adverse change in the significance of a tribal cultural resource, defined in PRC §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:
   a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC §5020.1(k)
   b. 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 PRC§5024.1.

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

b. Project Impacts and Mitigation Measures

Threshold 1:	Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is 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)?
Threshold 2:	Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?

Impact TCR-1 **THE PROPOSED PROJECT MAY CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF AN UNKNOWN TRIBAL CULTURAL RESOURCE BECAUSE EARTHMOVING ACTIVITIES ASSOCIATED WITH THE PROPOSED PROJECT COULD EXPOSE PREVIOUSLY UNDISCOVERED SUBSURFACE ARCHAEOLOGICAL RESOURCES THAT MAY BE CONSIDERED TRIBAL CULTURAL RESOURCES AND COULD BE ADVERSELY AFFECTED BY THE PROJECT CONSTRUCTION. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.**

The City prepared and mailed letters to local California Native Americans in accordance with AB 52. No tribal cultural resources have been identified from AB 52 consultation efforts. However, earthmoving activities associated with the proposed project could expose previously undiscovered subsurface archaeological resources that may be considered tribal cultural resources and could be adversely affected by the project construction. This impact would be considered potentially significant; however, implementation of mitigation measures TCR-1 and TCR-2 would reduce impacts to previously unidentified tribal cultural resources. Following implementation of these mitigation measures, project impacts to tribal cultural resources would be less than significant.

Mitigation Measures

The following mitigation measures were agreed upon between the City and referenced tribes during the AB 52 Tribal consultation process.

TCR-1 Gabrieleño Band of Mission Indians—Kizh Nation (Kizh Nation) Tribal Consultation Measures

Prior to issuance of a grading permit for the project, the Permittee shall retain a Gabrieleño Band of Mission Indians—Kizh Nation (Kizh Nation) tribal monitor to provide Native American tribal monitoring of ground-disturbing activities. Ground-disturbing work requiring Native American tribal monitoring shall adhere to the following requirements established by the consulting Tribe:

1. Retain a Gabrieleño Band of Mission Indians—Kizh Nation Monitor Prior to Commencement of Ground-Disturbing Activities.
   A. The Permittee shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of any “ground-disturbing activity” for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). “Ground-disturbing activity” shall include, but is not limited

to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.

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

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

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

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

2. Unanticipated Discovery of Human Remains and Associated Funerary Objects.

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

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

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

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

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

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

3. Procedures for Burials and Funerary Remains:

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

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

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

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

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

F. Each occurrence of human remains and associated funerary objects shall be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony shall be removed to a secure container on site if possible. These items shall be retained and reburied within 6 months of recovery. The site of reburial/

repatriation shall be on the project site but at a location agreed upon between the Kizh Nation and the Permittee at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered.

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

TCR-2 Gabrieliño Tongva Indians of California (GTIOC) Tribal Consultation Measures

Prior to issuance of a grading permit for the project, the Permittee shall retain a Gabrieliño Tongva Indians of California (GTIOC) tribal monitor to provide Native American tribal monitoring of ground-disturbing activities. Ground-disturbing work requiring Native American tribal monitoring shall adhere to the following requirements established by the consulting Tribe:

1. Gabrieliño Tongva Indians of California (GTIOC) Native American Monitor
   A. A qualified and certified indigenous tribal member of the Gabrieliño Tongva Indians of California (GTIOC) shall provide professional Native American Monitoring required for the ground-disturbing activity on the site. Ground disturbances including but not limited to the removal of asphalt/cement/slurry, trenching, boring, excavation, auguring, grubbing, tree removal, grading and drilling shall be monitored. The Tribal Monitor shall only be required on site when these ground-disturbing activities occur.
   B. The GTIOC monitor shall be responsible for observing all mechanical and hand labor excavations to include paddle scrappers, blade machines, front-end loaders, backhoe, boring and drill operations as well as hydraulic and electric chisels. Associated work using tools such as picks and other non-electric or gasoline tools that are not regarded as mechanical shall be monitored for their soil disturbances.
   C. Soils that are removed from the work site are considered culturally sensitive and are subject to inspection. These soils whether placed in a dump truck or spots piles are to be inspected. The monitor shall temporarily hold excavations until a determination is made on the sensitivity of the of the soil. If the soils are sensitive, an archaeological monitor shall verify the find and notify the site supervisor.
   D. The GTIOC monitor may make recommendations during the course of the project when a cultural area has been impacted. The GTIOC monitor shall be authorized to halt or redirect excavation activities to another area as an assessment is made. Both archaeological and GTIOC shall work together to ensure that the area is warranted as being culturally sensitive before a determination is made. Avoidance and directing an alternative route from this culturally sensitive area is highly recommended.
   E. Any artifacts associated within the site that are not associated with any burials are subject to collection by the designated archaeologist for purposes of data and information vital for their final report. The GTIOC monitor does not collect artifacts for any reason. Unauthorized removal of artifacts will jeopardize sites orientation and successful data recovery. Only a qualified archaeologist shall remove artifacts for their reports. The landowner shall work with the GTIOC monitor to ensure that a proper repository is

established. A final report shall be issued to the cultural consultant by the archaeological company.

F. It is the sole responsibility of the GTIOC monitor to provide the client with a written daily field report that includes photos of his/her accounting of the soil disturbances of the daily activities. This perspective of the daily activities by the GTIOC monitor shall enhance the information gathered by the field archaeologist. The daily report shall include observations the GTIOC visually observed on the project site at the beginning of each workday (i.e., weather conditions, overnight disturbances).

2. Archaeological Survey

A. If a culturally sensitive area is identified, an archaeological survey must be completed before any movement of soil (to include hand shoveling, grading or excavation) takes place. The survey must be conducted by a qualified archaeologist who is knowledgeable and experienced in working in the Gabrieliño Tongva geographical area. If an archaeologist has little or no experience in the Gabrieliño Tongva territory, a qualified, experienced Gabrieliño Tongva cultural consultant shall assist in the archaeological survey.

3. Treatment Plan for Human Discovery

A. If any archaeological or paleontological, or cultural deposits, are discovered, including but not limited to skeletal remains and grave related artifacts, artifacts of traditional cultural, religious, or spiritual sites, or any other artifacts relating to the use or habitation sites, all construction shall cease within at least 50 feet of the discovery and halted until the proper authorities are contacted. Authorities, to include the county corner and law enforcement, shall evaluate and make a determination and a formal review of the find. The county coroner has the legal responsibility for determining whether or not the remains are native indigenous people.

B. If it is established that the remains are of native indigenous people, the Native American Heritage Commission (NAHC) shall be contacted by the coroner under the California Health and Safety Code (Senate Bill 297, Chapter 1492, Statutes of 1982 and Section 7050.50). A Most Likely Descendant (MLD) shall be assigned by the NAHC to ensure the ancestor(s) is treated with dignity and respect (Public Resources Code Section 5097.98). A certified osteologist shall be retained to verify the human remains' authenticity and work to help remove the ancestor(s) from the site area with the discretion and advice of the MLD. The GTIOC monitor(s) assigned to the project shall assist the osteologist and archaeological monitors in the recovery process. The MLD shall determine where the ancestors shall be housed pending a final decision for the reinterment of the ancestor(s).

4. Recovery and Reburial Procedures

A. Specific methods of recovery and reburial procedures have been developed and adopted by the Gabrieliño Tongva Indians of California and are required to adhere to when recovering Gabrieliño Tongva remains. Conditions may arise where altering some of these guidelines shall be considered. Consultation with the MLD and the GTIOC monitor(s) assigned to the site should then be scheduled to determine other procedures that may be acceptable to the Gabrieliño Tongva Nation.

Excavation:

1. Consultation between the MLD and the archaeological firm must take place before the recovery of the remains and during the process of extraction.
2. A 50-foot perimeter for each uncovered burial shall be required to safeguard further destruction until the area is examined for additional remains and associated grave goods.
3. In the event blade machines are operating in an adjacent area, a maximum of 2- inch cuts or less shall be permitted in all cultural areas.
4. If more than one area is being excavated for extraction of remains simultaneously, an additional GTIOC must be required. Each excavated burial shall be monitored exclusively.
5. Wooden tools are preferred for the process of recovery; electric chisels and other power tools should be avoided.
6. If remains are pedestaled, they shall be placed on plywood for removal. If remains cannot be pedestaled due to soil conditions, remains shall be carefully placed in cloth bags.
7. Soils adjacent to burials shall be saved for reburial in plastic containers.
8. No photography (both film and digital) or video is allowed to be taken of the remains or the site. Drawings of remains are permitted to retain the orientation of the ancestors for reinterment purposes only. Coroner photographs of the remains may not be published for any purpose.

Testing:

1. DNA testing cannot be undertaken.
2. No invasive testing which would compromise the integrity of the remains is permitted.
3. Macroscopic analysis is permitted.
4. Any associated grave goods (such as shell) may be used for dating purposes of each burial.
5. When remains are unearthed, 1-foot X 1-foot test pits will be allowed to establish the extent of the burial area when necessary.
6. All windrows within a 50-foot area must be screened (either wet or dry).

Storage:

1. Natural cotton bags and sheeting or cotton drop cloths shall be used to store remains until the time of reinterment. Deer or other native hides may be used to cover the bagged and wrapped remains until the reburial and may become the burial wrapping.
2. Bone fragments are also subject to be bagged in cotton.
3. Until the scope of the project is completed, storage of ancestors shall be done in close proximity to the location of excavation or a protected area must be provided by the landowner or archaeologist.

Reburial:

1. Efforts shall be made to keep the remains within the same location or in close proximity to the removal site as possible. It is preferable to repatriate the remains within a 0.50-mile radius of the original grave site. If it is not possible to identify a proper location within the 0.50-mile radius, a secure location will be valued over distance.
2. If the preponderance of remains is uncovered in or excavated from one area, the reinterment should be in that area.
3. The reburial site should offer the best long-term protection against any additional disturbances.
4. Each reburial requires approximately 4 feet X 5.5 feet when fully articulated and should be at a depth of 6–10 feet. The purpose of this depth is to ensure difficulty in disturbing the reburial and to allow adequate room for capping if necessary.
5. Any isolated bone fragments uncovered on site may be buried together in an individual burial pit with indigenous animal skins, seaweed, or the cotton cloth used for all bagged fragments.
6. All associated grave goods and artifacts along with soils shall be buried together with the ancestors.
7. No drawings of any other images of ancestral remains may be used for publication without consultation and the approval of the GTIOC monitors and appointed MLD for the site.

Costs:

1. The landowner(s) shall be responsible for all costs related to the proper storage and reburial of remains excavated on their property to include all burial materials as required in these procedure guidelines.
2. The landowner(s) shall be financially responsible for providing reburial plots that are acceptable by the MLD.

Significance After Mitigation

Through the evaluation of unanticipated potential tribal cultural resources, should they be discovered, implementation of Mitigation Measures TCR-1 and TCR-2 would reduce impacts on tribal cultural resources to a less than significant level.

4.12.4 Cumulative Impacts

The cumulative impacts of near-term cumulative projects (listed in Table 3-1 in Section 3, *Environmental Setting*) and/or buildout of the proposed project, would have the potential to adversely impact tribal cultural resources within the vicinity of the project site. Although no tribal cultural resources have been identified for the proposed project and other cumulative projects, the potential exists for cumulative development projects to encounter subsurface archaeological resources that may be considered tribal cultural resources. The reduction of tribal cultural resources in traditional tribal territory caused by cumulative development in the region could result in a significant cumulative impact.

It is anticipated that cumulative development projects would be required to comply with similar mitigation described herein for the project. Additionally, compliance with AB 52 and continued involvement by local Native Americans in regional planning would generally reduce the destruction of tribal cultural resources such that cumulative impacts would be minimized. As such, cumulative impacts to tribal cultural resources would not be significant.

As discussed under Impact TCR-1, no tribal cultural resources have been identified at the project site. Potential impacts to previously unidentified tribal cultural resources would be reduced to a less than significant level with implementation of mitigation measures TCR-1 and TCR-2. As implementation of these mitigation measures would minimize adverse effects on any potential tribal cultural resources, the project's contribution to this impact would not be cumulatively considerable.

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4.13 Utilities and Service Systems

This section addresses impacts related to utilities and service systems. It considers potential impacts with respect to water supply and infrastructure, wastewater conveyance and treatment facilities, stormwater and drainage facilities, solid waste disposal, and electricity, natural gas, and telecommunications facilities.

4.13.1 Setting

The following section describes the existing setting with respect to water suppliers, wastewater treatment providers, stormwater drainage facilities, electricity and natural gas providers, telecommunications facilities, and solid waste facilities serving the project site. Information generated by CalEEmod regarding generation of wastewater, water consumption and energy are provided in (Appendix F).

a. Water Sources, Supply, Demand, and Distribution

Water Sources

The City of Long Beach water purveyor is the Long Beach Water Department (LBWD) [1] their service area covers approximately 32,000 acres (approximately 50 square miles) and they provide potable and recycled water supply. LBWD receives its potable water supply from two main sources, groundwater and imported water. Approximately 60 percent of the city's water supply is local groundwater pumped by wells throughout the city. The city is underlain by the Central Basin and West Coast Basin, but LBWD currently only utilizes the Central Basin. The remaining water supply comes from the Colorado River (25 percent) via the 242-mile Colorado River Aqueduct and Northern California's Bay-Delta region (15 percent), via the 441-mile California Aqueduct (LBWD 2023a). The Metropolitan Water District (MWD) of Southern California is the city's water supply wholesaler (LBWD 2023a). LBWD is responsible for the installation, maintenance, and improvement of the city's water distribution system. Currently, the City has water rights to pump approximately 33,000 acre-feet of groundwater per year (LBWD 2023b). LBWD is undertaking efforts to grow the city's groundwater resources for the future, in order to increase sustainability and simultaneously reduce dependency on imported water.

Water Supply and Demand

In 2020, the LBWD supplied approximately 55,216 acre-feet (AF) of desalinated water and recycled water purchased from MWD (LBWD 2021). The residential sector accounts for an average of 71 percent of total water use (40 percent for single-family residences and 31 percent for multi-family residences), while the commercial, landscape, and other sectors account for the remaining 29 percent (LBWD 2021).

The LBWD projects in its 2020 Urban Water Management Plan (UWMP) that annual water demand for the service area will be 51,691 acre-feet per year (AFY) in 2040 under normal year conditions, which includes potable and recycled water (LBWD 2021). Table 4.13-1 depicts water supply and

[1] Gas service was formerly provided by the Long Beach Energy Resources Department; and water, reclaimed water, and sewer service were provided by Long Beach Water Department; but as a result of a recent City Charter amendment, these departments have been combined and are now known as the Long Beach Utilities Department. The term "Long Beach Water Department" is still used in some cases, however, such as on its web page (https://lbwater.org/) and in its most recent UWMP, so it is referred to as LBWD in some parts of this section such as when summarizing information from the UWMP.

demand forecasts under normal, single dry year, and multiple dry year conditions. The LBWD projects that, under all conditions, water supplies will increase to approximately 88,752 AFY by 2035 through 2050. The minimum available annual water supply for all scenarios (normal, single dry year, and multiple dry year conditions) is also estimated at 84,752 AF in year 2025 (LBWD 2021), which also includes a surplus of at least 30,788 AF (LBWD 2021). The LBWD-planned supply accommodates the projected demand for the service area under both normal, single year, and multiple year drought conditions.

Table 4.13-1 LBWD Supply and Demand Comparison under Normal Year, Dry Year, and Multiple Dry Year Scenarios (AFY)

Sources	2025	2030	2035	2040	2045	2050
Supplies	84,752	84,752	88,752	88,752	88,752	88,752
Demand	53,964	53,964	51,861	51,691	51,653	52,570
Total Surplus	**30,788**	**30,788**	**36,891**	**37,061**	**37,099**	**36,182**

Source: LBWD 2021

Water Distribution System

LBWD water system provides potable and recycled water supply to the City of Long Beach. LBWD's potable water system consists of two primary pressure zones and is primarily fed by treated groundwater from LBWD's centralized Groundwater Treatment Plant (GWTP) and supplemented by eight imported water connections (LBWD 2021). The potable distribution system includes two tank farms, three booster stations, more than 7,000 hydrants, and over 94,000 active service connections (LBWD 2021). Approximately 916 miles of transmission and distribution pipelines (2-inch to 54-inch), move water throughout the system and deliver water to homes and businesses in the city (LBWD 2021). In addition, there are 20 active inter-agency connections with the Cities of Signal Hill, Compton, Los Angeles, Lakewood, Paramount, and Seal Beach; the Harbor Department; the California Water Company; and the Golden State Water Company (LBWD 2021). Most of these connections are in place for emergency purposes only.

b. Wastewater

LBWD is not only a retail water agency, but also collects wastewater from its sewer system and transports that wastewater to the Los Angeles County Sewer District (LACSD) regional trunk lines. A portion of the wastewater collected by LBWD is delivered to the Joint Water Pollution Control Plant (JWPCP) in Carson, and the remainder of the wastewater collected by LBWD is delivered to the Long Beach Water Reclamation Plant (WRP). The WRP treats wastewater collected by not only LBWD but also the wastewater collected by many other communities upstream of Long Beach, such as the cities of Lakewood and Cerritos (LBWD 2021). The WRP currently provides primary, secondary, and tertiary treatment for a design capacity of 25 million gallons of wastewater per day (County of Los Angeles 2023). WRP treats approximately 18 million gallons per day of wastewater to stringent regulatory standards for disinfected tertiary recycled water (LBWD 2023c). LBWD operates and maintains over 700 miles of sanitary sewer lines for collecting and delivering over 40 million gallons of wastewater per day to the LACSD (LBWD 2023c).

c. Stormwater Drainage

Stormwater discharges consist of surface water runoff generated from various land uses. The quality of these discharges varies and is affected by geology, land use, season, hydrology, and sequence and duration of hydrologic events. Stormwater is generally directed to a series of public street catch basins located throughout Long Beach. Water flow in these basins is correlated with stormwater runoff and generally limited to periods during and following precipitation events. Stormwater infrastructure within Long Beach is maintained by the Stormwater and Environmental Compliance Division of the City of Long Beach Public Works Department (City of Long Beach 2023a). Stormwater ultimately runs off to downstream wetlands, creeks, and eventually the Pacific Ocean.

d. Electric Power Supply and Demand

State Electric Power Supply

In 2021, California's in-state electricity generation totaled 277,764 gigawatt-hours (California Energy Commission [CEC] 2023a). Primary fuel sources for the state's electricity generation in 2021 included natural gas, hydroelectric, solar photovoltaic, wind, nuclear, geothermal, biomass, and solar thermal. According to the 2020 Integrated Energy Policy Report, California's electric grid relies increasingly on clean sources of energy such as solar, wind, geothermal, hydroelectricity, and biomass. In addition, by 2025 the use of electricity sourced from out-of-state coal generation will be eliminated. As this transition advances, the grid is also expanding to serve additional loads produced by building and vehicle electrification among other factors (EIA 2022).

Electric Power Demand

As shown in Table 4.13-2, communitywide development in Los Angeles County (the smallest scale at which electricity consumption data is readily available) consumed approximately 65,375 gigawatt-hours in 2021, which was approximately 23.5 percent of statewide electricity consumption (CEC 2021a). In comparison, the population of Los Angeles County is approximately 25 percent of California's population (California Department of Finance 2022). Therefore, per capita electricity consumption in Los Angeles County is lower than the statewide average.

Table 4.13-2 2021 Electricity Consumption

Energy Type	Los Angeles County (GWh)	Southern California Edison (GWh)	California (GWh)	Proportion Southern California Edison Consumption[1]	Proportion of Statewide Consumption[1]
Electricity	65,375	103,045	277,764	63%	23.5%

GWH = gigawatt-hours

[1] For reference, the 2021 population of Los Angeles County (9,861,224 persons) was approximately 25 percent of the population of California (39,185,605 persons) (California Department of Finance 2022).

Source: CEC 2021a

e. Natural Gas Supply and Demand

Natural Gas Supply

State

California's natural gas consumption for 2021 was approximately 11.9 billion British thermal units (Btu) (CEC 2021b). The state relies on out-of-state natural gas imports for nearly 90 percent of its supply (CEC 2023b). The California Energy Commission (CEC) estimates that approximately 45 percent of the natural gas burned across the state is used for electricity generation, and the remainder is consumed in the residential (21 percent), industrial (25 percent), and commercial (9 percent) sectors (CEC 2023b).

Long Beach Energy Resources Department

Natural gas is provided to Long Beach by Long Beach Energy Resources Department (LBERD)[2], whose service area spans the Cities of Long Beach and Signal Hill. LBERD serves approximately 500,000 customers with approximately 1,900 miles of main and service pipelines (City of Long Beach 2023b).

Natural Gas Demand

As shown in Table 4.13-3, communitywide development in Los Angeles County (the smallest scale at which gas consumption data is readily available) consumed approximately 2,881 million US therms in 2021 (CEC 2021b). Long Beach residents utilizing LBERD resources consumed approximately 92 therms in 2021 (CEC 2021b). The majority of natural gas uses are for residential and commercial purposes. Currently, California imports 87 percent of natural gas needs from out of state, while in-state natural gas production is decreasing.

Table 4.13-3 2021 Natural Gas Consumption

Energy Type	Los Angeles County (millions of US therms)	Long Beach Energy Resources Department (millions of US therms)	California (billions of US therms)
Natural Gas	2,881	92	11.9

Source: CEC 2021b

f. Telecommunications

In California, approximately 98 percent of households have access to telecommunication infrastructure, including telephone and cable access (California Cable & Telecommunications Association 2021). Numerous private local, wireless, and cellular phone service providers serve Long Beach.

g. Solid Waste Collection and Disposal

Long Beach is currently provided waste collection and disposal services by the City of Long Beach Environmental Services Bureau (ESB). Most solid waste in Long Beach is transported to the Southeast Resource Recovery Facility (SERRF). The SERRF is located at 118 Pier S. Avenue in Long Beach. The SERRF accepts green materials, mixed municipal, and other non-hazardous wastes collected in the

[2] LBERD is now combined with several other City departments under the umbrella of the Long Beach Utilities Department, as previously explained in this section.

city (California Department of Resources Recycling and Recovery [CalRecycle] 2019). According to its Solid Waste Facility Permit, the total capacity of the SERRF is 2,240 tons per day, and the maximum permitted daily throughput is 2,240 tons (CalRecycle 2019). The City promotes solid waste reduction through numerous diversion programs aimed at reducing the amount of solid waste going to landfills. These programs include greenwaste reduction, backyard and on-site composting/mulching, electronic disposal, recycling, economic incentives, and educational programs.

4.13.2 Regulatory Setting

a. Water

Federal

Clean Water Act

The Federal Clean Water Act, enacted by Congress in 1972 and amended several times since, is the primary federal law regulating water quality in the United States and forms the basis for several State and local laws throughout the country. The Clean Water Act establishes the basic structure for regulating discharges of pollutants into the waters of the United States. The Clean Water Act gave the United States Environmental Protection Agency (USEPA) the authority to implement federal pollution control programs, such as setting water quality standards for contaminants in surface water, establishing wastewater and effluent discharge limits for various industry contaminants in surface water, establishing wastewater and effluent discharge limits for various industry categories, and imposing requirements for controlling nonpoint-source pollution. At the federal level, the Clean Water Act is administered by the USEPA and the United States Army Corp of Engineers (USACE). At the state and regional levels in California, the act is administered and enforced by the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB).

National Pollution Discharge Elimination System

The NPDES permit system was established in the CWA to regulate point source discharges into waters within the United States. Point sources are discrete conveyances such as pipes or manmade ditches. Individual homes connected to a municipal system are not required to obtain a permit under the NPDES, however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) regulates public water systems (PWSs) that supply drinking water (42 United States Code [U.S.C.] Section 300(f) et seq.; 40 Code of Federal Regulations [CFR] Section 141 et seq.). The principal objective of the federal SDWA is to ensure that water from the tap is potable (safe and satisfactory for drinking, cooking, and hygiene). The main components of the federal SDWA are to:

- Ensure that water from the tap is potable
- Prevent contamination of groundwater aquifers that are the main source of drinking water for a community
- Regulate the discharge of wastes into underground injection wells pursuant to the Underground Injection Control program (see 40 CFR Section 144)
- Regulate distribution systems

State

California Safe Drinking Water Act

The California Safe Drinking Water Act (Health & Safety Code Section 116270 et seq.; 22 Cal. Code Regs. Section 64400 et seq.) regulates drinking water more rigorously than the federal SDWA. Like the federal SDWA, California requires that primary and secondary maximum contaminant levels (MCLs) be established for pollutants in drinking water; however, some California MCLs are more protective of health. The California SDWA also requires the SWRCB to issue domestic water supply permits to public water systems.

The SWRCB enforces the federal and State SDWAs and regulates more than 7,500 Permits for Water Systems (PWS) across the state. Implementation of the federal SDWA is delegated to the State of California. The SWRCB Division of Drinking Water (DDW) oversees the State's comprehensive Drinking Water Program (DWP). The DDW is the agency authorized to issue PWS permits.

Sustainable Groundwater Management Act

In September 2014, the governor signed legislation requiring that California's critical groundwater resources be sustainably managed by local agencies. The Sustainable Groundwater Management Act (SGMA) gives local agencies the power to sustainably manage groundwater and requires groundwater sustainability plans to be developed for medium- and high-priority groundwater basins, as defined by the Department of Water Resources (DWR). Pursuant to California Water Code Section 10933, prioritizations are assigned by DWR to each groundwater basin based on the overlying population, the current and projected rates of population growth, the number of public supply wells that draw from the basin, the total number of wells that draw from the basin, the irrigated acreage overlying the basin, the degree to which people overlying the basin rely on groundwater as their primary source of water, documented impacts on the groundwater within the basin (e.g., overdraft, subsidence, saline intrusion, water quality degradation), and any other relevant information (e.g., adverse impacts to local habitat and streamflows). The proposed project is located within the Central Basin (Geoforward 2022). LBWD primarily relies upon groundwater extracted locally from the Central Basin to meet customer water demands, in addition to purchasing water from the Metropolitan Water District of Southern California (MWD) to make up the difference between demand and groundwater supplies (LBWD 2021). The Central Basin is a very low-priority basin under SGMA (DWR 2020). Only high- and medium-priority groundwater basins are required by SGMA to form a groundwater sustainability agency and adopt a groundwater sustainability plan (or alternative). Low and very-low priority basins may adopt a groundwater sustainability plan (or alternative) but are not required to do so.

California Building Standards Code

The California Code of Regulations (CCR) Title 24 is referred to as the California Building Standards Code. It consists of a compilation of several distinct standards and codes related to building construction including plumbing, electrical, interior acoustics, energy efficiency, and handicap accessibility for persons with physical and sensory disabilities. The current iteration is the 2022 Title 24 standards. The California Building Standards Code's water conservation standards are outlined below.

PART 5 – CALIFORNIA PLUMBING CODE

The California Plumbing Code is codified in Title 24, California Code of Regulations, Part 5. The Plumbing Code contains regulations including, but not limited to, plumbing materials, fixtures, water heaters, water supply and distribution, ventilation, and drainage. More specifically, Part 5, Chapter 4, contains provisions requiring the installation of low flow fixtures and toilets. Existing development will also be required to reduce its wastewater generation by retrofitting existing structures with water efficient fixtures (SB 407 [2009] Civil Code Sections 1101.1 et seq.).

PART 11 – CALIFORNIA GREEN BUILDING STANDARDS

The California Green Building Standards Code—Part 11, Title 24, California Code of Regulations—known as CALGreen, is the first-in-the-nation mandatory green building standards code. In 2007, CBSC developed green building standards in an effort to meet the goals of California's landmark initiative AB 32, which established a comprehensive program of cost-effective reductions of greenhouse gases (GHG) to 1990 levels by 2020. CALGreen sets regulations regarding energy efficiency, water efficiency and conservation, material conservation, resource efficiency, and environmental quality. The code sets mandatory provisions for commercial, residential, and public school buildings.

Water Conservation in Landscaping Act

The Water Conservation in Landscaping Act, enacted in 2006, required the DWR to update the Model Water Efficient Landscape Ordinance (MWELO). In 2009, the Office of Administrative Law approved the updated MWELO, which required a retail water supplier or a county to adopt the provisions of the MWELO by January 1, 2010, or enact its own provisions equal to or more restrictive than the MWELO provisions. The MWELO is contained in Chapter 2.7 of the California Water Code. The City of Long Beach uses the DWR adopted MWELO which applies to new construction with landscape area equal or greater than 500 square feet, rehabilitated construction with landscape area equal or greater to 2,500 square feet, existing landscapes, and cemeteries. MWELO is implemented through Chapter 21.42 of the Long Beach Municipal Code.

Water Conservation Act of 2009 (Senate Bill X7 7 (2009))

State law (SB-X7 7) mandates the reduction of urban per capita water use and agricultural water use throughout the State by 20 percent by 2020. SB-X7 7 also requires that all water suppliers increase their water use efficiency.

Local

Long Beach Municipal Code

CHAPTER 15.32 – WATER AND ELECTRODE WELLS

Chapter 15.32 of the Long Beach Municipal Code outlines the City's regulations regarding the construction, repair, and reconstruction of groundwater wells in the city. The chapter also details water quality regulations aimed at protecting the health, safety, and welfare of Long Beach residents and the groundwater supply. Chapter 15.32 includes regulations regarding bacterial standards and conformance for domestic wells, and pump discharge line elevation rules.

CHAPTER 21.42 – LANDSCAPE STANDARDS

Section 21.42.035 of Chapter 21.42 of the Long Beach Municipal Code implements the State Water Conservation Landscaping Act and requires that all projects requiring site plan review shall file a conceptual MWELO Project Checklist, Water Efficient Landscape Worksheet, and Landscape Design Plan at the time of application submittal. All applicable MWELO provisions shall be required prior to issuance of a Notice of Final Action.

Long Beach Water Department (LBWD) Urban Water Management Plan (UWMP)

The LBWD 2020 UWMP serves as a plan for the city's reliable water supply and managing water resources consistent with LBWD's goals and policy objectives and fulfills LBWD's obligations under the California's Urban Water Management Planning Act. The UWMP includes supply and demand projections for the city and contains details on the City's effort to reduce water demand.

b. Wastewater

Federal

Clean Water Act

The federal Clean Water Act is described above in *Water*.

State

Standards for wastewater treatment plant effluent are established using State and federal water quality regulations. After treatment, wastewater effluent is either disposed of or reused as recycled water. The RWQCBs set the specific requirements for community and individual wastewater treatment and disposal and reuse facilities through the issuance of Waste Discharge Requirements, required for wastewater treatment facilities under the California Water Code Section 13260.

California Code of Regulations Title 22, Division 4, Chapter 3, Sections 60301 through 60355 are used to regulate recycled wastewater and are administered by the RWQCBs. Title 22 contains effluent requirements for four levels of wastewater treatment, from un-disinfected secondary recycled water to disinfected tertiary recycled water. Higher levels of treatment have higher effluent standards, allowing for a greater number of uses under Title 22, including irrigation of freeway landscaping, pasture for milk animals, parks and playgrounds, and vineyards and orchards for disinfected tertiary recycled water.

Local

Long Beach Municipal Code

CHAPTER 8.96 – STORMWATER AND RUNOFF POLLUTION CONTROL

The purpose of Chapter 8.96 of the Long Beach Municipal Code is to protect and improve water quality of receiving waters by prohibiting elicit discharges, eliminating illicit connections to the stormwater system, eliminating spillage, dumping, and disposal of pollutant materials, and reducing pollutant loads in stormwater and urban runoff from land uses and activities identified in the Municipal National Pollutant Discharge Elimination System Permit (NPDES).

c. Electric Power and Natural Gas

Federal

Energy Star Program

Energy Star is a voluntary labeling program introduced by the United States Environmental Protection Agency (U.S. EPA) to identify and promote energy-efficient products to reduce GHG emissions. The program applies to major household appliances, lighting, computers, and building components such as windows, doors, roofs, and heating and cooling systems. Under this program, appliances that meet specifications for maximum energy use established under the program are certified to display the Energy Star label. In 1996, the U.S. EPA joined with the Energy Department to expand the program, which now also includes certifying commercial and industrial buildings as well as homes (U.S. EPA 2021).

State

California Energy Commission

As the State's primary energy policy and planning agency, the CEC collaborates with State and federal agencies, utilities, and other stakeholders to develop and implement State energy policies. Since 1975, the CEC has been responsible for reducing the State's electricity and natural gas demand, primarily by adopting new Building and Appliance Energy Efficiency Standards that have contributed to keeping California's per capita electricity consumption relatively low. The CEC is also responsible for the certification and compliance of thermal power plants 50 megawatts and larger, including all project-related facilities in California (CEC 2021b).

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates investor-owned electric and natural gas utilities operating in California. The energy work responsibilities of the CPUC are derived from the California State Constitution, specifically Article XII, Section 3 and other sections more generally, numerous State legislative enactments and various Federal statutory and administrative requirements. The CPUC regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from SoCal Gas and other natural gas utilities across California (CPUC 2021a).

Energy Action Plan

In 2003, the CEC and CPUC set forth their energy policy vision in the Energy Action Plan. The CEC adopted an update to the Energy Action Plan in February 2008 (EAP II) that supplements the earlier Energy Action Plan and examines the state's ongoing actions in the context of global climate change. The nine major action areas in the Energy Action Plan include energy efficiency, demand response, renewable energy, electricity adequacy/reliability/ infrastructure, electricity market structure, natural gas supply/demand/infrastructure, transportation fuels supply/demand/infrastructure, research/development/demonstration, and climate change (CPUC 2008b).

Senate Bill 350

The Clean Energy and Pollution Reduction Act of 2015 (SB 350) requires a doubling of the energy efficiency savings in electricity and natural gas for retail customers through energy efficiency and conservation by December 31, 2030.

2022 Scoping Plan for Achieving Carbon Neutrality

On November 16, 2022, the California Air Resources Board (CARB) adopted the 2022 Scoping Plan for Achieving Carbon Neutrality, which provides a framework for achieving the State's 2045 GHG emissions reduction target of 85 percent below 1990 levels. The 2022 Scoping Plan for Achieving Carbon Neutrality relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, the 2017 Scoping Plan, and implementation of recently adopted policies and legislation. The 2022 Scoping Plan for Achieving Carbon Neutrality includes a wide variety of goals related to energy efficiency and renewable energy that are intended to help meet the State's 2045 target (CARB 2022).

California Renewable Portfolio Standard and Senate Bill 100

Approved by the governor on September 10, 2018, SB 100 accelerates the state's Renewable Portfolio Standard program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

California Energy Efficiency Action Plan

The CEC is responsible for preparing the California Energy Efficiency Action Plan, which covers issues, opportunities, and savings estimates related to energy efficiency in California's building, industrial, and agricultural sectors. The 2019 California Energy Efficiency Action Plan focuses on three goals:

- Doubling energy efficiency savings by 2030 (SB 350)
- Removing and reducing barriers to energy efficiency in low-income and disadvantaged communities
- Reducing GHG emissions from the building sector

The 2019 California Energy Efficiency Action Plan offers several recommendations to advance these goals, including expanding funding sources for energy efficiency programs beyond ratepayer portfolios, improving energy efficiency data, integrating energy efficiency into long-term utility planning, enhancing the energy efficiency workforce, improving demand flexibility, and expanding building decarbonization (CEC 2019b).

California Building Standards Code

The California Building Standards Code's standards related to energy use are outlined below.

PART 6 – BUILDING ENERGY EFFICIENCY STANDARDS/ENERGY CODE

California Code of Regulations, Title 24, Part 6, is California's Energy Efficiency Standards for Residential and Non-residential Buildings. The 2022 Building Energy Efficiency Standards (California Energy Code), became effective on January 1, 2023. The 2022 Standards have been adjusted to meet California's goal for call new commercial construction and 50 percent of commercial building retrofits to achieve Net Zero Energy Consumption by 2030. The 2022 Standards had three main updates: 1) multifamily buildings now have their own code section and requirements; 2) lighting power allowances; 3) lighting control requirements.

PART 11 – CALIFORNIA GREEN BUILDING STANDARDS

The 2022 CALGreen institutes mandatory minimum environmental performance standards for all ground-up new construction of non-residential and residential structures. It also includes voluntary tiers (I and II) with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum mandatory CALGreen standards and may adopt additional amendments for stricter requirements.

Specifically with regard to energy, the 2022 mandatory standards require the following:

- Inspections of energy systems to ensure optimal working efficiency
- Dedicated circuitry to facilitate installation of electric vehicle charging stations in newly constructed attached garages for single-family and duplex dwellings
- Designation of at least ten percent of parking spaces for multi-family residential developments as electric vehicle charging spaces capable of supporting future electric vehicle supply equipment

The Tier I and Tier II voluntary standards require stricter energy efficiency requirements and cool/solar reflective roofs.

d. Telecommunications

State

The CPUC develops and implements policies for the telecommunication industry. The Communications Division is responsible for licensing, registration and the processing tariffs of local exchange carriers, competitive local carriers, and non-dominant interexchange carriers. It is also responsible for registration of wireless service providers and franchising of video service providers. The Communications Division tracks compliance with commission decisions and monitors consumer protection and service issues and Commission reliability standards for safe and adequate service. The Communications Division is responsible for oversight and implementation of the six public purpose Universal Service Programs (CPUC 2021b).

e. Solid Waste

Federal

Resource Conservation and Recovery Act

40 CFR Part 258 (Resource Conservation and Recovery Act, Subtitle D) contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the federal landfill criteria.

State

Assembly Bill 939

AB 939 (Public Resources Code 41780) requires cities and counties to prepare integrated waste management plans and to divert 50 percent of solid waste from landfills beginning in calendar year 2000 and each year thereafter. AB 939 also requires cities and counties to prepare source reduction and recycling elements as part of the integrated waste management plans. These elements are designed to develop recycling services to achieve diversion goals, stimulate local recycling in

manufacturing, and stimulate the purchase of recycled products. In 2019, the city's solid waste diversion rate was 51.3 percent, which meets the requirement of AB 939 (Issakhani 2021).

Assembly Bill 341 and Senate Bill 1383

The purpose of Assembly Bill (AB) 341 of 2011 (Chapter 476, Statutes of 2011) is to reduce greenhouse gas (GHG) emissions by diverting commercial solid waste to recycling efforts and to expand the opportunity for additional recycling services and recycling manufacturing facilities in California. In addition to Mandatory Commercial Recycling, AB 341 sets a statewide goal for 75 percent disposal reduction by the year 2020.

In addition, SB 1383 of 2016 (Chapter 395, Statutes of 2016) established the following goals: a 50 percent reduction in the level of the statewide disposal of organic waste from 2014 levels by 2020 and a 75 percent reduction in the level of the statewide disposal of organic waste from 2014 levels by 2025. This bill also authorized CalRecycle to adopt regulations, to take effect on or after January 1, 2022, to achieve these targets.

Assembly Bill 1826

AB 1826 of 2014 (Chapter 727, Statutes of 2014) requires businesses that generate a specified amount of organic waste per week to arrange for recycling services for that waste, and for jurisdictions to implement a recycling program to divert organic waste from businesses subject to the law, as well as report to CalRecycle on their progress in implementing an organic waste recycling program. As of 2020, businesses that generate two cubic yards or more of organic waste per week must engage in one of the following:

- Source separate organic waste from other waste and participate in a waste recycling service that includes collection and recycling of organic waste
- Recycle organic waste on-site, or self-haul organic waste off-site for recycling
- Subscribe to an organic waste recycling service that may include mixed waste processing that specifically recycles organic waste

Senate Bill 1016

SB 1016 of 2007 (Chapter 343, Statutes of 2007) requires that the 50 percent solid waste diversion requirement established by AB 939 be expressed in pounds per person per day. SB 1016 changed the CalRecycle review process for each municipality's integrated waste management plan. After an initial determination of diversion requirements in 2006 and establishing diversion rates for subsequent calendar years, the Board reviews a jurisdiction's diversion rate compliance in accordance with a specified schedule. As of January 1, 2018, the Board is required to review a jurisdiction's source reduction and recycling element and hazardous waste element once every two years.

Local

Long Beach Municipal Code

CHAPTER 8.60 – SOLID WASTE, RECYCLING AND LITTER PREVENTION AND MANDATORY ORGANIC WASTE DISPOSAL REDUCTION

Chapter 8.60 of the Long Beach Municipal Code sets the City's standards for required receptacles and bins, green waste, waste that requires special handling, time and placement of receptacles, and waste reporting requirements. In addition, this Chapter includes provisions for waste reduction.

4.13.3 Impact Analysis

a. Methodology and Significance Thresholds

The assessment of impacts is based on review of site information and conditions, analysis provided in the LBWD 2020 UWMP, and City information regarding utility-related issues, including water supply and facilities, wastewater facilities, storm drainage, electric power, natural gas, telecommunications facilities, and solid waste.

Significance Thresholds

The following thresholds of significance were developed based on the CEQA Guidelines, specifically, Appendix G. The proposed project would have a significant impact with respect to utilities and service systems if it would do any of the following:

1. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects
2. Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years
3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments
4. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals
5. Conflict with Federal, State, and local management and reduction statutes and regulations related to solid waste

b. Project Impacts and Mitigation Measures

Threshold 1:	Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Impact UTIL-1 THE PROPOSED PROJECT WOULD INCREASE DEMAND FOR WATER, ELECTRIC POWER, TELECOMMUNICATIONS, AND STORMWATER DRAINAGE; HOWEVER, NO RELOCATION OR CONSTRUCTION OF UTILITY SERVICES WOULD BE REQUIRED TO SERVICE THE PROJECT BEYOND CONNECTIONS TO EXISTING UTILITIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Water and Wastewater

Development of the proposed project may require installation of water connections, hydrants, and sewer connections. Such facilities would be installed during project construction and generally within the disturbance area of such projects or the rights-of-way of previously disturbed roadways. Water service connections may only be made to water mains 12 inches and smaller. The Metropolitan Water District of Southern California (Metropolitan) owns and operates a 72-inch feeder line along West Carson Street, north of the project site. There may be potential impacts to this line that may result from implementation of the proposed project.

In addition, the City of Long Beach has several water use restrictions to address and minimize additional water demand (see Section 4.13.2a) and related impacts on or from wastewater (see Section 4.13.2b). These rules include restrictions on the day, time, and duration that landscape watering may take place. Sections 15.44.100 of the Long Beach Municipal Code would require the applicant to pay a utility pipeline installation and maintenance fee in proportion to the new connection's pipe size. The payment of this fee would help ensure that the City would have sufficient capacity within its water and wastewater system to accommodate the proposed project. Furthermore, as described in Impacts UTIL-2 and UTIL-3, there would be sufficient water supply and wastewater treatment capacity to accommodate the project's demand.

LBWD requires compliance with the following conditions of approval:

1. An easement shall be provided for water and sewer mains, 20 foot wide minimum and 10 feet from the centerline of water and sewer mains services
2. Developer shall protect in place or relocate per approved plans all existing water and sewer services affected by this development
3. Developer shall cap all sewer laterals a minimum of two feet from the property line, in the public right-of-way
4. All new construction will require the installation of a new cut-in wye (six-inch lateral) or manhole connection (eight-inch and larger lateral)
5. Plans shall be approved by the LBWD prior to construction
6. At no time will the Department approve plans that include landscaping (except grass or shallow root plantings) or structures (such as walls, drainage systems, sidewalk, pavers, and any kind of stamped or decorative concrete or permanent Structures of any type) placed within easements

Compliance with the conditions of approval set by LBWD would protect existing water service systems and public right-of-way, and construction of these infrastructure improvements would not substantially increase the project's disturbance area or otherwise cause significant environmental effects beyond those already identified throughout this EIR.

The proposed project would include connections to the existing water and wastewater system but would not create substantial water demand (due to implementation of the Long Beach Municipal Code requirements), such that new or expanded water or wastewater facilities would be needed. The water connections associated with the proposed project would not cause significant environmental effects beyond those already identified throughout this EIR. In addition, the proposed project is consistent with the land use patterns in the General Plan and UWMP. Therefore, the demand for water has been predicted for the proposed project and included in future uses as described in the UWMP. As such, impacts related to potential new water and wastewater facilities would be less than significant.

Stormwater

Runoff associated with the proposed project would be regulated by Chapter 8.96 of the Long Beach Municipal Code, which would ensure compliance with the MS4 Permit. Compliance with these regulations would ensure that project development would mimic the pre-development site hydrology, which would ensure that there is proper stormwater drainage on the project site and would minimize any operational impacts related to water quality or flooding. The proposed project would not require any new or expanded stormwater facilities beyond what would be installed pursuant to the regulatory requirements in Chapter 8.96 of the Long Beach Municipal Code (see *Stormwater* under the *Regulatory Setting* section above). Therefore, impacts related to the development of new stormwater facilities would be less than significant.

Electricity/Natural Gas

The proposed project would require connections to existing electrical transmission and distribution systems in Long Beach to serve the proposed project. This service would be provided in accordance with the rules and regulations of Southern California Edison and under the authority of the CPUC. Based on the availability of existing electrical infrastructure, it is not anticipated that the construction of new electrical transmission and distribution lines would be required, and all sites would be able to connect to existing infrastructure. Therefore, there would be adequate electrical facilities to serve the proposed project and impacts related to potential new electrical facilities would be less than significant.

There currently is no existing natural gas infrastructure at the project site and, according to the site plan for the proposed project (Appendix O), there are no existing gas mains within the vicinity of the project site. Additionally, The Long Beach Climate Action Plan (LB-CAP) checklist requires the proposed project to be fully electric, with full carbon/electricity generation offset by including solar panels. This will be a required project design feature and a condition of approval of the proposed project (see Section 2.8.1, *Conditions of Approval*). This precludes the use of natural gas for operation of the proposed project. Therefore, the proposed project would have no impact related to potential new natural gas facilities.

Telecommunications

The proposed project would require connections to existing telecommunications infrastructure. Based on the availability of existing telecommunications infrastructure, construction of new off-site

telephone and cable lines would not be required because the proposed project would be able to connect to existing infrastructure. The proposed project would be required to adhere to applicable laws and regulations related to connecting to existing telecommunication infrastructure. Therefore, there would be adequate telecommunications facilities to serve the proposed project and impacts related to potential new telecommunications facilities would be less than significant.

Mitigation Measures

This impact would be less than significant with compliance with Long Beach Municipal Code rules and regulations, LBWD conditions of approval, and all other applicable rules and regulations, so no mitigation would be required.

Threshold 2:	Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Impact UTIL-2 THE PROPOSED PROJECT WOULD INCREASE DEMAND FOR WATER; HOWEVER, CITY WATER SUPPLIES WOULD BE SUFFICIENT TO SERVE THE PROPOSED PROJECT AND REASONABLY FORESEEABLE FUTURE DEVELOPMENT IN NORMAL, DRY, AND MULTIPLE DRY YEARS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The proposed project would create additional demand for water in Long Beach. According to CalEEMod modeling results the proposed project would require approximately 130 million gallons per year (approximately 0.36 million gallons per day [mgd]), or approximately 398 AFY (Appendix F). The City's UWMP identifies the existing and projected supply and water demand for normal, dry, and multiple dry years. Although, according to the site plan for the proposed project (Appendix O), the proposed project would implement green building and sustainability features, the proposed project would result in an increase in water demand. However, the proposed project is consistent with the land use patterns in the General Plan and UWMP. Therefore, the demand for water has been predicted for the proposed project and included in future uses as described in the UWMP.

As described in Section 4.13.1, *Setting,* the LBWD provides water services to the City of Long Beach. The LBWD projects in its 2020 UWMP that annual water demand for the service area will be 51,691 acre-feet per year (AFY) in 2040 under normal, single dry year, and multiple dry year conditions, which includes potable and recycled water (LBWD 2021). The proposed project would increase water demand by approximately 399 AFY, or 0.8 percent. This increase would not substantially decrease existing water supplies. In addition, the City has adequate water supply, including a surplus of water, during normal, single-dry, and multi-dry year conditions.

Regarding water use for landscaping, the proposed project would be required to comply with the State Model Water Efficient Landscape Ordinance (MWELO). The MWELO requires new development projects with landscape areas of 500 square feet or more to design a landscaping plan with an estimated total water use that would not exceed the site's calculated Maximum Applied Water Allowance, which is based on the site's reference evapotranspiration, adjustment factor, and the size of the landscaped area. The MWELO requires the use of high efficiency irrigation emission devices, automatic irrigation controllers that use either evapotranspiration or soil moisture sensor data for irrigation scheduling, and sensors that suspend or alter irrigation operation during unfavorable weather conditions.

Although, as described in the analysis above, the proposed project would demand more water than the existing on-site uses under modeled conditions, it would not require or result in the relocation or construction of new or expanded water facilities because the City has adequate water supply to meet

proposed project water needs from existing sources. Therefore, impacts would be less than significant.

Mitigation Measures

Because the proposed project would increase LBWD's water demand by approximately 0.8 percent and this increase would not substantially decrease existing water supplies; because the City has adequate water supply, including a surplus of water, during normal, single-dry, and multi-dry year conditions; and because the proposed project would be required to comply with the MWELO, the proposed project would have a less than significant impact related to water supply, and no mitigation would be required.

Threshold 3:	Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Impact UTIL-3 THE PROPOSED PROJECT WOULD INCREASE DEMAND FOR WASTEWATER TREATMENT BUT THERE IS ADEQUATE WASTEWATER TREATMENT CAPACITY TO SERVE THE PROPOSED PROJECT'S PROJECTED DEMAND IN ADDITION TO EXISTING COMMITMENTS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The amount of wastewater generated by the proposed project was estimated based on the estimated water demand of 130 million gallons per year, or 0.36 mgd, calculated in Impact UTIL-2, and the principle that water demand is 120 percent of wastewater generation (due to evaporation and system losses, meaning that not all water that is used ends up going to the wastewater treatment plan). Assuming that water demand is 120 percent of wastewater generation, the total wastewater demand due to the proposed project is estimated to be approximately 0.30 mgd.

The Long Beach Water Reclamation Plan (WRP) has an existing wastewater treatment capacity of 25 mgd (County of Los Angeles 2023) and is currently treating approximately 18 mgd of wastewater (LBWD 2023). There is approximately 7 mgd of remaining capacity for wastewater treatment. The proposed project's estimated wastewater generation of 0.30 mgd would utilize approximately 4.29 percent of the remaining capacity for wastewater treatment at the WRP. Therefore, the WRP would have adequate capacity to treat wastewater produced by the proposed project. Impacts would be less than significant.

Mitigation Measures

Because the WRP has adequate remaining wastewater treatment capacity to accommodate the proposed project's estimated wastewater generation, the proposed project would have a less than significant impact on wastewater treatment capacity, and no mitigation would be required.

Threshold 4:	Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
Threshold 5:	Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Impact UTIL-4 THE PROPOSED PROJECT WOULD NOT GENERATE SOLID WASTE IN EXCESS OF STATE OR LOCAL STANDARDS, WOULD NOT EXCEED THE CAPACITY OF LOCAL INFRASTRUCTURE, WOULD NOT IMPAIR THE ATTAINMENT OF SOLID WASTE REDUCTION GOALS, AND WOULD COMPLY WITH FEDERAL, STATE, AND LOCAL MANAGEMENT AND REDUCTION STATUTES AND REGULATIONS RELATED TO SOLID WASTE. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The proposed project would generate additional solid waste in Long Beach. Project construction would create construction debris, such as scrap lumber and flooring materials. Project operation would create typical wastes associated with operation of industrial development.

As described in Section 4.13.1, *Setting*, the SERRF is permitted to receive 2,240 tons of solid waste per day (CalRecycle 2023). According to CalEEMod, the proposed project would produce 527.34 tons of waste per year (1.44 tons per day), which would represent well below one percent of the permitted daily solid waste allowed at the SERRF.[3] According to these calculations, while the proposed project would increase solid waste generation, solid waste facilities would have enough capacity to accommodate this increase.

AB 939 requires the City to divert 50 percent of solid waste from landfills, and SB 1383 requires the City to reduce organic waste disposal by 75 percent by 2025. In addition, the proposed project would be required to comply with AB 1826, requiring the proposed project to acquire organic waste recycling services should the project produce organic waste. The proposed project would be required to comply with Chapter 8.60 of the Long Beach Municipal Code, which includes requirements for mandatory municipal solid waste, recycling, and composting material disposal reductions, as well as compliance with CALGreen requirements for diverting construction and demolition debris. As discussed above, local infrastructure would have the capacity to accommodate solid waste generated by development of the proposed project. Therefore, impacts on solid waste infrastructure would be less than significant.

Mitigation Measures

Because the proposed project would produce well below one percent of the permitted daily solid waste allowed at the SERRF, and with compliance with all applicable regulations regarding solid waste diversion, local infrastructure would have the capacity to accommodate solid waste generated by the proposed project. Impacts on solid waste infrastructure would therefore be less than significant and no mitigation would be required.

4.13.4 Cumulative Impacts

The geographic scope of the cumulative utilities and service systems analysis is the service area for each utility purveyor for the project and the immediately adjacent areas served by common infrastructure. Cumulatively new development projects would place an additional demand on water; wastewater utilities and treatment; stormwater utilities; electricity and natural gas utilities;

[3] 0.064 percent = (1.4 tons per day / 2,240 tons per day) * 100

telecommunication utilities; and solid waste facilities Cumulative development throughout Long Beach would add both dwelling units and non-residential development to the city. Citywide development through 2045 would add approximately 18,700 new residents, 29,600 new households, and 29,500 new employees (SCAG 2020). Cumulative impacts from this development are discussed below by impact area.

Cumulative projects within the city are located in a built out area where they could connect to existing electricity, natural gas, and telecommunication utilities. Because cumulative projects would connect to existing electricity, natural gas, and telecommunication utilities in an already built out area, cumulative projects would not result in significant environmental effects and cumulative impacts would be less than significant.

Water and Wastewater

Cumulative projects would be required to comply with similar policies as identified for the proposed project. For example, other cumulative projects would also be required to pay a pipeline connection fee and wastewater pipeline connection fee in proportion to the new connection's pipeline size. Cumulative projects in the city would also be required to implement the City's water conservation strategies. In addition, according to its UWMP, LBWD has adequate supply, with a remaining water supply surplus, through normal, single-dry, and multi-dry year conditions to meet projected demand. In addition, the UWMP determined that under projected growth forecasts, water use across all sectors is expected to remain steady or decline with the exception of irrigation water use (LBWD 2021). Since the proposed project and cumulative projects are considered within the UWMPs growth projections, the LBWD should continue to have adequate water supplies. As such, cumulative water and wastewater impacts would be less than significant.

Stormwater

Cumulative projects would be required to comply with Chapter 8.96 of the Long Beach Municipal Code. Implementation of the municipal code would ensure that there is proper stormwater drainage on cumulative project sites. Through compliance with Section 8.96 of the Long Beach Municipal Code, cumulative projects would not require additional stormwater facilities beyond those identified for each cumulative project. As such, cumulative stormwater utility impacts would be less than significant.

In addition, cumulative projects in the city would be required to comply with Section 8.60 of the Long Beach Municipal Code to minimize solid waste generation. Cumulative projects in Long Beach would be required to comply with CALGreen requirements for diverting construction and demolition debris, pursuant to Chapter 18.47 of the Long Beach Municipal Code (which adopts CALGreen. Because each cumulative project would minimize solid waste generation, in compliance with federal, state, and local regulations requiring diversion of 76 percent of all waste by 2030, cumulative impacts on solid waste facilities would be less than significant. Additionally, because the proposed project would produce well below one percent of the permitted daily solid waste allowed at the SERRF, it would not make a substantial contribution to this impact.

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5 Other CEQA Required Discussions

5.1 Irreversible Environmental Effects

CEQA requires an EIR to evaluate a project's effects in a relationship to other broader changes that may be occurring in the environment, that are foreseeable. Accordingly, this chapter includes a discussion of the other CEQA-mandated analysis for irreversible impacts and growth inducing associated with the proposed project.

Section 15126.2(c) of the CEQA Guidelines requires a discussion of any significant irreversible environmental changes that would be caused by the proposed project. Specifically, Section 15126.2(c) states:

"Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irreversible commitments of resources should be evaluated to assure that such current consumption is justified."

Generally, a project would result in significant irreversible environmental changes if any of the following would occur:

- The primary and secondary impacts would generally commit future generations to similar uses.
- The project would involve a large commitment of nonrenewable resources.
- The project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

The proposed project involves infill development on a currently undeveloped lot in the City of Long Beach. Construction and operation of the proposed project would involve an irreversible commitment of construction materials and non-renewable energy resources. The proposed project would involve the use of building materials and energy, some of which are non-renewable resources, to construct the overall building floor area of 560,039 square feet. Consumption of these resources would occur with any development in the region and are not unique to the proposed project.

The proposed project would also increase local demand for non-renewable energy resources such as petroleum products. However, increasingly efficient building design would offset this demand to some degree by reducing energy demands of the proposed project. As discussed in Section 2, *Project Description*, solar panels and water conservation elements would be incorporated into the proposed project design as conditions of approval to reduce the building's energy utilization and achieve LEED certification. In addition, the proposed project would be subject to the energy conservation requirements of the California Energy Code (Title 24, Part 6, of the California Code of Regulations, *California's Energy Efficiency Standards for Residential and Nonresidential Buildings*) and the California Green Building Standards Code (Title 24, Part 11 of the California Code of Regulations). The California Energy Code provides energy conservation standards for all new and renovated commercial and residential buildings built in California, and the Green Building Standards Code requires solar

access, natural ventilation, and stormwater capture. Consequently, the proposed project would not use unusual amounts of energy or construction materials and impacts related to consumption of non-renewable and slowly renewable resources would be less than significant. Again, consumption of these resources would occur with any development in the region and is not unique to the proposed project.

Additional vehicle trips associated with the proposed project would incrementally increase local traffic and regional air pollutant and GHG emissions. However, as discussed in Section 4.1, *Air Quality*, and Section 4.6, *Greenhouse Gas Emissions*, with implementation of Mitigation Measure GHG-1 requiring compliance with applicable greenhouse gas (GHG) reduction measures from the City of Long Beach Climate Action Plan (LB-CAP), development and operation of the proposed project would not generate air quality or GHG emissions that would result in a significant impact.

The proposed project would not cause significant environmental impacts related to the unnecessary, inefficient, or wasteful use of resources. Although the proposed project would require a commitment of potable water, wastewater treatment, and solid waste disposal services, as discussed in Section 4.13, *Utilities and Service Systems*, impacts to these service systems would not be significant.

In summary, implementation of the proposed project would involve irreversible environmental changes to existing natural resources, such as the commitment of energy and water resources as a result of the operation and maintenance of the proposed project. However, the proposed project would not involve wasteful or unjustifiable use of energy or other resources, and energy conservation efforts would also occur with new construction. The proposed project would be constructed and operated in accordance with specifications contained in Title 24 of the California Code of Regulations, as discussed in Section 4.4, *Energy*. Therefore, the use of energy related to the proposed project would occur in an efficient manner.

5.2 Growth Inducement

Section 15126.2(d) of the CEQA Guidelines requires an EIR to "discuss the ways in which the project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth..." In general terms, a project may result in a significant growth inducing impact if it individually or cumulatively with other projects results in any of the actions described in the following examples:

- The project removes an obstacle to growth, such as: the establishment of an essential public service, the provision of new access to an area, or a change in zoning or general plan designation.
- The project results in economic expansion, population growth or the construction of additional housing occurs in the surrounding environment in response to the project, either directly or indirectly.

Growth does not necessarily create significant physical changes to the environment but, depending upon the type, magnitude, and location of growth, it can result in significant adverse environmental effects. The proposed project's growth inducing potential is therefore considered significant if growth induced by the proposed project could result in significant physical effects in one or more environmental issue areas.

5.2.1 Population Growth

As discussed in Section 14, *Population and Housing* of the Initial Study (Appendix A), the proposed project would not directly generate population growth because it does not include residential uses. However, the proposed project may indirectly generate population growth if new employees relocate to the City of Long Beach. According to the California Department of Finance (DOF), the City of Long Beach had an estimated population of 458,222 in 2023 (DOF 2023). The Southern California Association of Governments (SCAG) estimates that the City's population will increase to 489,600 by 2045, which is an increase of 6.85 percent or 31,378 persons (SCAG 2020). SCAG estimates that employment in the City of Long Beach will increase to 185,400 by 2045, which is an increase of 18.92 percent or 29,500 jobs from 155,900 jobs in 2016 (SCAG 2020). According to generation rates from the SCAG 2001 Employment Density Study Summary Report, 543,239 square feet (sf) of warehouse facilities and 16,800 sf of office headquarters would house approximately 411 employees (See Table 5-1).[1] These 411 employees would equal about 1.4 percent of the 29,500 new jobs expected to be available in the City by 2045. Therefore, given the small percentage of employment opportunities the proposed project would provide compared to the overall projected employment opportunities, the proposed project would not cause a substantial increase in population or induce unplanned population growth.

5.2.2 Economic Growth

The proposed project would generate temporary employment opportunities during construction. Because construction workers would be drawn from the existing regional work force, construction of the proposed project would not be growth-inducing because of the temporary nature of construction employment. The proposed project would add long-term employment opportunities associated with its operation. Table 5-1 depicts the potential increase in job opportunities from the proposed project.

Table 5-1 Employment Increase Resulting from Proposed Project

Industrial Land Use	Amount (sf)	Employment Density	Total
Office	16,800	319 sf/employee[1]	53
Warehouse	543,239	1,518 sf/employee[1]	359
Total Net New Employees			**411**

[1] SCAG Employment Density Study, 2001, Table II-B, Los Angeles County, *http://www.mwcog.org/uploads/committee-documents/bl5aX1pa20091008155406.pdf*

Note: sf= square feet

SCAG estimates that employment in the City of Long Beach will increase to 185,400 by 2045, which is an increase of 18.92 percent or 29,500 jobs from 155,900 jobs in 2016 (SCAG 2023). The 411 jobs projected to result from the proposed project would be approximately 1.4 percent of expected job growth between 2016 and 2045 and would therefore be well within employment forecasts.

The proposed project would not induce substantial economic expansion to the extent that direct physical environmental effects would result. Moreover, the environmental effects associated with any future development in or around Long Beach would be addressed as part of the CEQA environmental review for such development projects.

[1] The Initial Study calculated the number of workers employed by the proposed project as 358, which would equal a lower percentage (1.2 percent) of the 29,500 new jobs expected in the City 2045. In either case the proposed project would not cause a substantial increase in population or induce unplanned population growth.

5.2.3 Removal of Obstacles to Growth

The proposed project is in a fully urbanized area that is well served by existing infrastructure. As discussed in Section 4.13, *Utilities*, and Section 4.11, *Transportation*, existing infrastructure in Long Beach would be adequate to serve the proposed project. Minor improvements to infrastructure to support water, sewer, and drainage connections may be required but would be sized to specifically serve the proposed project. As discussed in the Traffic Impact Analysis (Appendix D), the proposed project would not generate average daily traffic volumes that exceed the capacity on adjacent streets providing access to the project site. As shown in the proposed project site plan (see Figure 2-4 in Section 2, *Project Description*), the proposed project's driveways would be perpendicular to the public right-of-way and would be adequately spaced from existing intersections. Additionally, the proposed project would not be incompatible with the surrounding community because it would introduce uses to the project site that are already present in the area. No new roads would be required. Because the proposed project constitutes development within an urbanized area and does not require the extension of new infrastructure through undeveloped areas, proposed project implementation would not remove an obstacle to growth.

5.3 Energy Effects

Public Resources Code Section 21100(b)(2) and Appendix F of the CEQA Guidelines require that EIRs include a discussion of the potential energy consumption and/or conservation impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, or unnecessary consumption of energy.

The proposed project would involve the use of energy during its construction and operational phases. Energy use during the construction phase would be in the form of fuel consumption (e.g., gasoline and diesel fuel) to operate heavy equipment, light-duty vehicles, and machinery. In addition, temporary grid power may also be provided to any temporary construction trailers or electric construction equipment. Long-term operation of the proposed project would require permanent grid connections for electricity to power internal and exterior building lighting, and heating and cooling systems.

Southern California Edison (SCE) would provide electricity service for the proposed project. SCE's power mix in 2021 contained 31.4 percent renewable, 9.2 percent nuclear, and 22.3 percent natural gas (SCE 2023). Natural gas service would not be required by the proposed project.

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 operations from a variety of land use projects. The model quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. Furthermore, the model identifies mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from measures chosen by the user. Complete CalEEMod results and assumptions are provided in Appendix F of this EIR. The proposed project's estimated motor vehicle fuel as calculated from CalEEMod is shown in Table 5-2.

Total estimated energy usage, including motor vehicle fuel, is summarized and compared to statewide usage in Table 5-3. The proposed project would result in increased weekday trips, and vehicle miles traveled (VMT) compared to the current use of the site. However, given that California used 277,764

gigawatt-hours (GWh) of electricity in 2021 (CEC, 2023a and 2023b) and Californians consumed over 15 billion gallons of motor vehicle fuels in 2021 (CEC, 2022), the proposed project would minimally contribute to statewide energy consumption and would not adversely affect energy supplies.

Table 5-2 Estimated Proposed Project-Related Annual Motor Vehicle Fuel Consumption

Vehicle Type	Percent of Vehicle Trips[1]	Annual Vehicle Miles Traveled[2]	Average Fuel Economy (miles/gallon)[3]	Total Annual Fuel Consumption (gallons)
Passenger Vehicles	74.08%	900,482	25.0	36,019
Light-Medium Duty Trucks	0.00%	0	17.6	–
Heavy Trucks/Other	25.92%	315,072	7.5	42,010
Motorcycle	0.00%	0	44	–
Total	**100.00%**	**1,215,554**	**–**	**78,029**

[1] Percent of vehicle trips found in Table 4.4 "Fleet Mix" in CalEEMod output (see Appendix F)

[2] Mitigated annual VMT found in Table 4.2 "Trip Summary Information" in CalEEMod output (see Appendix F)

[3] Average fuel economy for passenger vehicles light/medium trucks, heavy trucks/other, and motorcycles provided by the United States Department of Transportation, Bureau of Transportation Statistics (2021)

Note: Totals may not add up due to rounding.

Table 5-3 Estimated Proposed Project-Related Energy Usage Compared to State-Wide Energy Usage

Form of Energy	Units	Annual Project-Related Energy Use	Annual State-Wide Energy Use	Project Percentage of State-Wide Energy Use
Electricity	mWh	6,300[1]	287,220,000[2]	0.002%
Natural Gas	kBTU	0[1]	2,313,000,000,000[3]	0%
Motor Vehicle Fuels	gallons	78,029[4]	18,019,000,000[5]	0.0004%

[1] Energy use found in Table 5.11 "Operational Energy Consumption" " in CalEEMod output (see Appendix F)

[2] California Energy Commission, California Energy Almanac, 2022. Total Electricity System Power, data as of December 2023. Available: *http://www.energy.ca.gov/almanac/electricity_data/total_system_power.html*.

[3] California Energy Commission, California Energy Almanac, Overview of Natural Gas in California – Natural Gas Supply. Available: *http://www.energy.ca.gov/almanac/naturalgas_data/overview.html*.

[4] Total annual fuel consumption found in Table 4.4 "Fleet Mix" in CalEEMod output (see Appendix F)

[5] California Energy Commission, 2023 Integrated Energy Policy Report, Available at: https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2023-integrated-energy-policy-report

As discussed above, the proposed project would also be subject to the energy conservation requirements of the California Energy Code (Title 24, Part 6, of the California Code of Regulations, *California's Energy Efficiency Standards for Residential and Nonresidential Buildings*) and the California Green Building Standards Code (Title 24, Part 11 of the California Code of Regulations). The California Energy Code provides energy conservation standards for all new and renovated commercial and residential buildings constructed in California. The California Energy Code applies to the building envelope, space-conditioning systems, and water-heating and lighting systems of buildings and appliances. The Green Building Standards Code provides guidance on construction techniques to maximize energy conservation. Minimum efficiency standards are given for a variety of building elements, including appliances; water and space heating and cooling equipment; and insulation for doors, pipes, walls and ceilings. The Green Building Standards Code emphasizes saving energy at peak periods and seasons and improving the quality of installation of energy efficiency measures. In addition, the California Green Building Standards Code sets targets for: energy efficiency; water

consumption; dual plumbing systems for potable and recyclable water; diversion of construction waste from landfills; and use of environmentally sensitive materials in construction and design, including ecofriendly flooring, carpeting, paint, coatings, thermal insulation, and acoustical wall and ceiling panels.

The proposed project is required to comply with Title 24 standards. Specific sustainability features to be incorporated into the proposed project are described in subsection 2.7.1, *Condition of Approval* in Chapter 2, *Project Description*. Meeting Title 24 energy conservation requirements in combination with the proposed project's sustainability components described in Chapter 2, *Project Description* would ensure that energy is not used in an inefficient, wasteful, or unnecessary manner per Public Resources Code Section 21100(b)(2).

6 Alternatives

As required by Section 15126.6 of the California Environmental Quality Act (CEQA) Guidelines, this chapter of the EIR examines a range of alternatives to the proposed project.

Section 15126.6(a) of the CEQA Guidelines states the following:

> "An EIR shall describe a reasonable range of alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason."

The basic objectives of the proposed project (which are also stated in Section 2.7 of this EIR) are the following:

- Improve the efficiency of Intex's business operations by consolidating the company's warehousing, distribution, and office operations (including its current operations in Fontana, California and locally at 4001 Via Oro Avenue and 1665 Hughes Way) into a single location
- Develop the currently vacant project site with a project that would be consistent with the intended use of the site as reflected in its zoning and General Plan PlaceTypes (land use designation)
- Improve the efficiency of the flow of cargo from the Ports of Long Beach and Los Angeles to Intex's new consolidated warehouse and corporate headquarters (project) and subsequent national distribution of Intex's products from this location
- Improve circulation around, into, and out of the project site and improve the safety and aesthetics of the project area by vacating Via Alcalde Avenue in the eastern portion of the project site
- Implement a project that will provide high quality design, materials, and operational methods to promote sustainability, energy, and water conservation and healthy workplaces
- Enhance the City's economy and tax base by developing the currently vacant property with improvements that will generate increased property taxes, employment, and economic activity

This chapter analyzes the following two alternatives, including the CEQA-required "no project" alternative, that involve changes to the proposed project to help reduce its environmental impacts as identified in this EIR:

- Alternative 1: No Project (the proposed project would not be approved, and the project site would remain in its current state)
- Alternative 2: Reduced Intensity

Alternative 1: No Project, assumes that that the proposed project is not implemented, none of the site improvements are developed, and the site remains in its present condition (a vacant, undeveloped field).

Alternative 2: Reduced Intensity, assumes the amount of development included in the proposed project would be reduced. For the purposes of this alternatives analysis, a 50 percent reduction in total square footage, including square footage of warehouse and office uses and parking spaces, is assumed. This alternative is intended to lessen and reduce impacts from the proposed project scenario related to intensity; especially those related to traffic (Transportation) and traffic-related impacts such as Air Quality and Noise.

This chapter also identifies which of these alternatives is considered the Environmentally Superior Alternative.

The City of Long Beach, in its role as lead agency, has determined that the alternatives analyzed in this chapter of the EIR represent a reasonable range of alternatives to the proposed project. The City has also determined, in its role as lead agency, that there are no other reasonable alternatives to the proposed project. The City considered but rejected an "Alternative Site" alternative as infeasible for the reasons provided in Section 6.1, *Alternatives Considered but Rejected*.

The potential environmental impacts of each alternative are analyzed in sections 6.2 and 6.3. Because the alternatives analysis is intended to focus on alternatives that would substantially lessen any of the significant effects of the proposed project, and because this EIR focuses only on impact areas with the potential for such effects, the potential impacts of each alternative are analyzed in the areas of Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Land Use and Planning, Noise, Public Services, Transportation, Tribal Cultural Resources, and Utilities and Service Systems, which are the only areas that were identified in the Initial Study (Appendix A) as having potentially significant effects.

Table 6-1 provides a summary comparison of the development characteristics of the proposed project and the alternatives. A more detailed description of the alternatives is included in the impact analysis for each alternative in sections 6.2 and 6.3.

Table 6-1 Comparison of Project Alternatives' Buildout Characteristics

Characteristic	Proposed Project	Alternative 1: No Project	Alternative 2: Reduced Intensity Alternative
Warehouse	543,239 sf	0 sf	271,619.5 sf
Office	16,800 sf	0 sf	8,400 sf
Total	560,039 sf	0 sf	280,019.5 sf
Parking Spaces	570 auto stalls 10 accessible stalls 174 trailer stalls	0 stalls	285 auto stalls 5 accessible stalls 87 trailer stalls

6.1 Alternatives Considered but Rejected

a. Alternative Site

The potential for an "Alternative Site" as an alternative assumes the proposed project would be developed at an alternative site in the City of Long Beach. The purpose of such an alternative would be to reduce the severity of site-specific impacts of the proposed project such as impacts to Cultural

Resources, Biological Resources, and Geology and Soils. The sites listed in Table 6-2 were considered because they are sites over 14 acres in the City of Long Beach's General Industrial (IG) zoning district that are potentially large enough to physically accommodate the proposed project.

For the reasons described in the "Feasibility" column in Table 6-2, none of these sites are feasible for development of the proposed project. Therefore, this alternative was eliminated from further consideration and not included as an alternative in the analysis below.

Table 6-2 Potential Alternative Sites

Assessor's Parcel Number	Property Address	Land Use	Feasibility
7119002007	2400 E Artesia Blvd	Industrial	**Infeasible.** This site is currently used as a warehouse for mail sorting
7119002006	6375 Paramount Blvd	Industrial	**Infeasible.** This site is currently used as a Toyota Auto Body Shop
7119019021	5905 Paramount Blvd.	Industrial	**Infeasible.** This site is currently used as an oil refinery
7119018033	5910 Cherry Ave	Commercial	**Infeasible.** This site is proposed for an industrial building and is currently being processed as an EIR. While the site might become available for development if this proposal is not approved, the site is approximately 0.9 miles from State Route 91 and would require trucks driving to and from the site to drive through residential neighborhoods, resulting in increased local traffic and air quality, land use compatibility, and noise impacts
7140014936	3450 E. 208th St.	Industrial	**Infeasible.** This site is currently used by LA Metro as the main maintenance site for Metro A Line trains
7149003902	Unknown (Triangular/gore-shaped parcel on south side of Cover St. between Pixie Ave. and Industry Ave.)	Airport	**Infeasible.** This site is owned by Long Beach Airport and is part of the active airfield. A new non-aviation-related project would be inconsistent with the Los Angeles County Airport Land Use Commission's (ALUC) Airport Land Use Plan (ALUP) for the Long Beach Airport and would violate current FAA requirements, which would potentially result in the loss of multiple millions of dollars of federal funding for Long Beach Airport annually. This site also is located in the Runway Protection zone of Runway 30, and no structures of any type can be built in the RPZ.
7149003919	2745 E Wardlow Rd	Airport	**Infeasible.** This site is owned by Long Beach Airport and is part of the active airfield. A new non-aviation-related project would be inconsistent with the Los Angeles County Airport Land Use Commission's (ALUC) Airport Land Use Plan (ALUP) for the Long Beach Airport and would violate current FAA requirements, which would potentially result in the loss of multiple millions of dollars of federal funding for Long Beach Airport annually

Assessor's Parcel Number	Property Address	Land Use	Feasibility
7149003935	4100 E Donald Douglas Dr	Airport	**Infeasible.** This site is owned by Long Beach Airport and is part of the active airfield and is home to the City's airport terminal and parking structures, making the site unavailable for development. A new non-aviation-related project would be inconsistent with the Los Angeles County Airport Land Use Commission's (ALUC) Airport Land Use Plan (ALUP) for the Long Beach Airport and would violate current FAA requirements, which would potentially result in the loss of multiple millions of dollars of federal funding for Long Beach Airport annually
7149003921	4300 E Donald Douglas Dr	Airport	**Infeasible.** This site is owned by Long Beach Airport and is part of the active airfield. A new non-aviation-related project would be inconsistent with the Los Angeles County Airport Land Use Commission's (ALUC) Airport Land Use Plan (ALUP) for the Long Beach Airport and would violate current FAA requirements, which would potentially result in the loss of multiple millions of dollars of federal funding for Long Beach Airport annually
7149003930	Unknown	Airport	**Infeasible.** This site is owned by Long Beach Airport and is part of the active airfield. The northern half of this site is occupied by airport runways and the southern half is open, cleared land on the southeastern end of the airfield. A new non-aviation-related project would be inconsistent with the Los Angeles County Airport Land Use Commission's (ALUC) Airport Land Use Plan (ALUP) for the Long Beach Airport and would violate current FAA requirements, which would potentially result in the loss of multiple millions of dollars of federal funding for Long Beach Airport annually
7212022901	3111 E Willow St	Government	**Infeasible.** This site is the City's fleet services yard and is not available for development.
7310015907	4110 Santa Fe Ave	High School	**Infeasible.** This site is currently occupied by Los Angeles Unified School District's Rancho Dominguez High School
7140014034	3701 N Pacific Pl	Vacant Land	**Infeasible.** A self-storage building is proposed for this site, and the City is processing an EIR for the project. This site is located adjacent to Interstate 710 (I-710) and Interstate 405 (I-405) and would provide direct access to and from the freeway for trucks. Truck access to the site from the ports could be challenging, however, since it is not possible to make a left turn from the Interstate 405 (I-405) eastbound off-ramp onto Pacific Avenue. This would require trucks coming from the ports and trying to access the site from the I-710 northbound to find an alternative route such as exiting the I-710 northbound at Willow Street or taking the I-710 northbound to the I-405 eastbound, exiting at Pacific Place, heading south on Pacific Place then making a U-turn or some other series of turns to head northbound on Pacific Place. Any such alternative would require trucks to drive adjacent to or through residential neighborhoods, resulting in increased local traffic and air quality, land use compatibility, and noise impacts. Additionally, while the site might become available for development if this application is not approved, this scenario is speculative.

Source: City of Long Beach, 2024

6.2 Alternative 1: No Project Alternative

As described below and throughout this EIR, the proposed project does not have any significant impacts that would be significantly reduced by this alternative. This alternative assumes that the improvements included in the proposed project are not implemented and the site remains in its present condition, as a vacant, undeveloped field. This alternative would not meet the objectives of the proposed project because it would not improve the efficiency of Intex's business operations; develop the currently vacant project site; improve the efficiency of the flow of cargo from the Ports of Long Beach and Los Angeles; improve circulation around, into and out of the project site and improve the safety and aesthetics of the project area; implement a project that will provide high quality design, materials, and operational methods to promote sustainability, energy, and water conservation and healthy workplaces; or enhance the City's economy and tax base by developing the currently vacant property with improvements that will generate increased employment, economic activity, and property taxes. Leaving the site as undeveloped land also would be inconsistent with the City's General Plan policies and objectives for the Industrial PlaceType, as described in the General Plan. Implementation of the No Project alternative would not preclude future development on the site. Any future development projects proposed on the site would be subject to at least the same level of discretionary review as required of the proposed project.

6.2.1 Impact Analysis

a. Air Quality

As discussed in Impact AQ-1 in Section 4.1, *Air Quality,* construction and operation of the proposed project would not exceed the South Coast Air Quality Management District's (SCAQMD's) regional thresholds of significance and air quality impacts related to construction and operation would be less than significant without mitigation. Additionally, as discussed in Impact AQ-2*,* the proposed project would not expose sensitive receptors to substantial pollutant concentrations in the form of toxic air contaminant emissions and impacts would be less than significant without mitigation. Because the project site is currently vacant, there are little to no emissions currently resulting from use of the site. While the proposed project's impacts related to air quality emissions are less than significant without mitigation, the proposed project would still result in emissions from increased use of the site. Under the No Project Alternative, the project site would remain vacant and little to no emissions would result from this alternative. Therefore, the No Project Alternative's air quality impacts would be less than those of the proposed project.

b. Biological Resources

As described in Impact BIO-2 in Section 4.2, *Biological Resources*, the proposed project has the potential to impact nesting raptors and migratory birds, but implementation of Mitigation Measure BIO-1 would reduce this potential impact to a less than significant level. The proposed project would have a less than significant impact or no impact, without mitigation, on protected trees, sensitive natural communities, and wildlife movement.

Under the No Project Alternative, no construction or ground disturbing activities would occur at the project site, which would eliminate potential impacts to nesting raptors and migratory birds, protected trees, sensitive natural communities, and wildlife movement. Therefore, implementation of Mitigation Measure BIO-1 would not be required and the No Project Alternative's impacts on biological resources would be less than those of the proposed project.

c. Cultural Resources

As described in Impact CUL-2 in Section 4.3, *Cultural Resources*, because of the project site's proximity to permanent water sources that increase the likelihood of encountering subsurface archaeological resources beneath the project site, the proposed project could cause a substantial adverse change in the significance of an archaeological resource pursuant to *CEQA Guidelines* Section 15064.5. Implementation of mitigation measures CUL-1 through CUL-3 would reduce impacts to subsurface archaeological resources to a less than significant level. As described in Impact CUL-1, the proposed project would have no impact on historic resources. As described in Impact CUL-3, the proposed project would have a less than significant impact without mitigation regarding the disturbance and treatment of human remains.

Under the No Project Alternative, construction and ground disturbing activities would not occur, which would eliminate potential impacts to subsurface archaeological resources. Therefore, implementation of mitigation measures CUL-1 through CUL-3 would not be required and impacts to cultural resources would be less than those of the proposed project.

d. Energy

As described in Impact E-1 in Section 4.4 *Energy*, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources and impacts would be less than significant without mitigation. Additionally, as discussed in Impact E-2, the proposed project would consume energy but would not conflict with the City of Long Beach Climate Adaptation Action Plan Checklist, City of Long Beach General Plan, and SCAG 2020-2045 RTP/SCS and impacts would be less than significant without mitigation. Because the project site is currently vacant, there is little to no consumption of energy currently resulting from use of the site. While the project's impacts related to energy are less than significant, the proposed project would still result in consumption of energy resources from increased use of the site. Therefore, the No Project Alternative's energy impacts would be less than those of the proposed project.

e. Geology and Soils

As described in Impact GEO-1 in Section 4.5, *Geology and Soils*, because the project site is underlain by potentially liquefiable soils, the proposed project could expose people or structures to substantial adverse effects from seismic-related liquefaction. Implementation of mitigation measures GEO-1 through GEO-4 would reduce impacts to a less than significant level. As described in Impact GEO-2 and Impact GEO-3, the proposed project would have a less than significant impact without mitigation regarding unstable or expansive soils.

Under the No Project Alternative, construction and ground disturbing activities would not occur, which would eliminate potential impacts related to exposure of people or structures to adverse effects related to geology and soils. Therefore, implementation of mitigation measures GEO-1 through GEO-4 would not be required and impacts to geology and soils would be less than those of the proposed project.

f. Greenhouse Gas Emissions

As discussed in Impact GHG-1 in Section 4.6, *Greenhouse Gas Emissions,* the proposed project would generate temporary and long-term increases in greenhouse gas emissions and impacts related to greenhouse gas emissions are potentially significant. Implementation of Mitigation Measure GHG-1 would reduce this impact to a less than significant level.

Under the No Project Alternative, no development would occur at the project site. Because the project site is currently vacant, there are little to no emissions currently resulting from use of the site and Mitigation Measure GHG-1 would not be required. Therefore, the No Project Alternative's greenhouse gas impacts would be less than those of the proposed project.

g. Hazards and Hazardous Materials

As discussed in Section 4.7, *Hazards and Hazardous Materials,* all potential hazards and hazardous materials impacts of the proposed project would be less than significant without mitigation. Under the No Project Alternative, no development would occur at the project site and there would be no impacts involving hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school. Therefore, impacts under the No Project Alternative would be less than those of the proposed project.

h. Land Use and Planning

As discussed in Impact LU-1 in Section 4.8, *Land Use and Planning,* the proposed project is consistent with SCAG'S RTP/SCS, The City of Long Beach General Plan Land Use Element, the West Long Beach Business Parks Planned Development Zone, the Los Angeles River Master Plan, Long Beach RiverLink Plan, and the Lower Los Angeles River Revitalization Plan[1]. The proposed project would thus not conflict with applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect and impacts would be less than significant without mitigation.

Under the No Project Alternative, no development would occur at the project. No economic development, job creation, or transportation improvements would be included in this alternative. Therefore, this alternative would not meet several of the City of Long Beach General Plan Land Use Element goals, SCAG's 2020 RTP/SCS policies, Los Angeles River Master Plan goals, and West Long Beach Business Park Planned Development Plan objectives discussed in Table 4.8-1 in Impact LU-1 in Section 4.8, *Land Use and Planning*, such as Goal 2 of the Land Use Element (Stimulate Continuous Economic Development and Job Growth); Goal 3 of the Land Use Element (Accommodate Strategic Growth and Change); and Strategy 14 of the Mobility Element (Reduce the air quality impacts of freight transportation and Port-related traffic). Therefore, this alternative would be less consistent with SCAG'S RTP/SCS, the City of Long Beach General Plan Land Use Element, the West Long Beach Business Parks Planned Development Zone, the Los Angeles River Master Plan, Long Beach RiverLink Plan, and the Lower Los Angeles River Revitalization Plan and impacts would be greater than those of the proposed project.

i. Noise

As discussed in Impact NOI-1 in Section 4.9, *Noise*, construction of the proposed project would temporarily increase noise levels, potentially affecting nearby noise-sensitive land uses, and introduce new noise sources and contribute to increases in operational noise. As discussed in Impact NOI-2, the proposed project would temporarily generate groundborne vibration, potentially affecting nearby land uses, but at levels well below applicable vibration damage thresholds. These impacts would be less than significant without mitigation.

[1] While the proposed project is consistent with the Los Angeles River Master Plan, the Long Beach RiverLink Plan, and the Lower Los Angeles River Revitalization Plan, these plans are not part of the General Plan or Zoning Regulations of the City of Long Beach and are not regulatory in nature or binding upon local land use planning and regulation.

Under the No Project Alternative, no development would occur at the project site. Because the project site is currently vacant, it produces less noise and vibration than it would under the proposed project, which would result in temporary noise and vibration impacts from construction of the proposed project, as well as long-term noise and vibration impacts from the operation of the proposed office and warehouse uses on the site, including both on-site operational noise and vibration and on- and off-site vehicle noise and vibration. The No Project Alternative would not involve any construction on the project site or any construction traffic on surrounding streets, and would retain the site in its currently vacant, unused state. It would therefore avoid the proposed project's less than significant impacts related to both construction and operational noise and vibration, and its impacts in this regard would be less than those of the proposed project.

j. Public Services

As discussed in Section 4.10, *Public Services*, the proposed project would increase demand for public services but all impacts to public services would be less than significant without mitigation through application of standard regulatory requirements and development review procedures.

Under the No Project Alternative, no development would occur at the project site and there would be no additional demand for public services. Therefore, impacts would be less than those of the proposed project.

k. Transportation

As discussed in Impact TRA-1 in Section 4.11, *Transportation,* the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities and impacts would be less than significant without mitigation. Under the No Project alternative, the circulation system would remain the same as under current conditions. Therefore, this alternative would also not conflict with a program, plan, ordinance or policy addressing the circulation system and its impacts would be similarly less than significant. Therefore, impacts would be roughly the same as those of the proposed project.

As discussed in Impact TRA-2 and shown in Table 4.11-3, the proposed project would not conflict with CEQA Guidelines section 15064.3(b) because the proposed project's 2027 Home-Based Work VMT per employee of 18.8 would be less than the County's baseline Home-Based Work VMT per capita of 20.2 and impacts would be less than significant without mitigation. However, the proposed project would still result in both temporary construction traffic and long-term operational traffic that would be added to the area's street system. Under the No Project alternative, transportation and traffic would remain at current conditions. As discussed in Section 4.11.4, *Cumulative Impacts* and shown in Table 4.11-4, Home-Based Work VMT per employee in the 2045 Plus Project scenario (17.3) is lower than Home-Based Work VMT per employee in the 2045 No Project scenario (17.6). Therefore, VMT impacts from the No Project Alternative would be greater than those of the proposed project.

As discussed in impacts TRA-3 and TRA-4 in Section 4.11, the proposed project would not substantially increase hazards due to a design feature or incompatible uses and would not result in inadequate emergency access. Under the No Project alternative, the currently vacant site would remain vacant and therefore no design features or incompatible uses would be developed on site. Similarly, emergency access would also remain the same. Therefore, as with the proposed project, impacts would be less than significant.

Because this alternative would have greater VMT impacts than the proposed project, its overall transportation impacts would be greater than those of the proposed project.

l. Tribal Cultural Resources

As discussed in Section 4.12, *Tribal Cultural Resources*, the proposed project may cause a substantial adverse change in the significance of an unknown tribal cultural resource because earthmoving activities associated with the proposed project could expose previously undiscovered subsurface archaeological resources that may be considered tribal cultural resources and could be adversely affected by project construction. Implementation of mitigation measures TCR-1 and TCR-2 would reduce impacts to a less than significant level.

Under the No Project Alternative, construction and ground disturbing activities would not occur, which would eliminate potential impacts to tribal cultural resources. Therefore, implementation of mitigation measures TCR-1 and TCR-2 would not be required and impacts to tribal cultural resources would be less than the proposed project.

m. Utilities and Service Systems

As discussed in Section 4.13 *Utilities and Service Systems*, the proposed project would increase demand for utilities but all impacts would be less than significant without mitigation because no relocation or construction of utility services would be required to service the proposed project beyond connections to existing utilities; and City water supplies would be sufficient to serve the proposed project and reasonably foreseeable future development in normal, dry, and multiple dry years.

Under the No Project Alternative, no development would occur at the project site and there would be no additional demand for utilities. Therefore, impacts would be less than those of the proposed project.

6.3 Alternative 2: Reduced Intensity Alternative

As described below and throughout this EIR, the proposed project does not have any significant impacts that would be significantly reduced by this alternative. This alternative involves reducing the amount of development included in the proposed project. For the purposes of this analysis, a 50 percent reduction in total square footage, square footage of warehouse and office uses, and parking spaces has been assumed. This would result in a reduction from 560,039 square feet (sf) of total floor area to 271,619.5 sf of floor area; a reduction 543,239 sf of industrial uses to 271,260 sf; a reduction of 16,800 sf of office uses to 8,400 sf; and a reduction from 570 auto stalls, 10 accessible stalls, and 174 trailer stalls to 285 auto stalls, 5 accessible stalls, and 87 trailer stalls. The intent of this alternative is to reduce any potentially significant impacts associated with the proposed project that would result from its full proposed project intensity, such as traffic, noise, and air quality impacts. This alternative would generally meet some of the project objectives, but not all of the project objectives. This alternative would not meet the project objective of consolidating the company's operations into a single location because the reduced development intensity of this alternative would make it too small to accommodate the operations of Intex's three current operation sites. Additionally, the reduced development intensity of this alternative would make it too small to meet the other project objectives of improving the efficiency of the Ports of Long Beach and Los Angeles through a larger, consolidated site and enhancing the City's employment, economy, and tax base as effectively as the proposed project.

6.3.1 Impact Analysis

a. Air Quality

As discussed in Impact AQ-1 in Section 4.1, *Air Quality*, construction and operation of the proposed project would not exceed SCAQMD's regional thresholds of significance and air quality impacts related to construction and operation would be less than significant without mitigation. Additionally, as discussed in Impact AQ-2, the proposed project would not expose sensitive receptors to substantial pollutant concentrations in the form of toxic air contaminant emissions and impacts would be less than significant without mitigation. The Reduced Intensity Alternative would reduce emissions associated with construction and development and increased use of the site because it would reduce the amount of development on the site. This reduced amount of development could lead to fewer emissions during construction, if less of the site needed to be developed and less construction activity needed to be carried out to build the project. It would also lead to fewer emissions during operation of the project because less activity would be carried out on the site and fewer vehicle trips would be made to and from the site. Therefore, this alternative's air quality impacts would be less than those of the proposed project.

b. Biological Resources

As described in Impact BIO-2 in Section 4.2 *Biological Resources*, the proposed project has the potential to impact nesting raptors and migratory birds, but implementation of Mitigation Measure BIO-1 would reduce this potential impact to a less than significant level. The proposed project would have a less than significant impact or no impact, without mitigation, on protected trees, sensitive natural communities, and wildlife movement.

The Reduced Intensity Alternative would still involve construction and development, including ground disturbance and construction, at the project site. Therefore, Mitigation Measure BIO-1 would also be required for the Reduced Intensity Alternative's impacts on biological resources and impacts would be similar to those of the proposed project.

c. Cultural Resource

As described in Impact CUL-2 in Section 4.3, *Cultural Resources*, because of the project site's proximity to permanent water sources that increase the likelihood of encountering subsurface archaeological resources beneath the project site, the proposed project could cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. Implementation of mitigation measures CUL-1 through CUL-3 would reduce impacts to subsurface archaeological resources to a less than significant level. As described in Impact CUL-1, the proposed project would have no impact on historic resources. As described in Impact CUL-3, the proposed project would have a less than significant impact regarding the disturbance and treatment of human remains.

The Reduced Intensity Alternative would still involve construction and development, including ground disturbance and construction, at the project site. As with the proposed project, implementation of mitigation measures CUL-1 through CUL-3 would reduce impacts to subsurface archaeological resources to a less than significant level and impacts to cultural resources would be similar to those of the proposed project.

d. Energy

As described in Impact E-1 in Section 4.4, *Energy*, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources and impacts would be less than significant without mitigation. Additionally, as discussed in Impact E-2, the proposed project would consume energy but would not conflict with the City of Long Beach Climate Adaptation Action Plan Checklist, City of Long Beach General Plan, and SCAG 2020-2045 RTP/SCS and impacts would be less than significant without mitigation. While the proposed project's impacts related to energy are less than significant, the Reduced Intensity Alternative would consume less energy from development and increased use of the site than the proposed project because it would involve less development on the site. This reduced amount of development would result in less energy consumption during construction if less of the site needed to be developed and/or less construction activity needed to be carried out to build the project. It would also lead to less energy consumption during operation of the project because less activity would be carried out on the site and fewer vehicle trips would be made to and from the site. Therefore, this alternative's energy impacts would be less than those of the proposed project.

e. Geology and Soils

As described in Impact GEO-1 in Section 4.5, *Geology and Soils*, because the project site is underlain by potentially liquefiable soils, the proposed project could expose people or structures to substantial adverse effects from seismic-related liquefaction. Implementation of mitigation measures GEO-1 through GEO-4 would reduce impacts related to liquefaction to a less than significant level. As described in Impact GEO-2 and Impact GEO-3, the proposed project would have a less than significant impact without mitigation regarding unstable or expansive soils.

The Reduced Intensity Alternative would still involve development of a combination warehouse and distribution center with accessory offices on the project site. Therefore, this alternative could still expose people or structures to substantial adverse effects related to geology and soils. As with the proposed project, implementation of mitigation measures GEO-1 through GEO-4 would reduce impacts to a less than significant level and overall impacts to geology and soils would be similar to those of the proposed project.

f. Greenhouse Gas Emissions

As discussed in Impact GHG-1 in Section 4.6 *Greenhouse Gas Emissions*, the proposed project would generate temporary and long-term increases in greenhouse gas emissions and impacts related to greenhouse gas emissions are potentially significant. Implementation of Mitigation Measure GHG-1 would reduce this impact to a less than significant level.

The Reduced Intensity Alternative would reduce emissions associated with development and operation of the site because it would reduce the amount of development on the site. This reduced amount of development could lead to fewer emissions during construction, if less of the site needed to be developed and/or less construction activity needed to be carried out to construct the project. It would also lead to fewer emissions during operation of the project because less activity would be carried out on the site and fewer vehicle trips would be made to and from the site. Implementation of Mitigation Measure GHG-1 would also further reduce emissions resulting from this alternative. Therefore, this alternative's greenhouse gas impacts would be less than those of the proposed project.

g. Hazards and Hazardous Materials

As discussed in Section 4.7, *Hazards and Hazardous Materials*, all potential hazards and hazardous materials impacts of the proposed project would be less than significant without mitigation. The Reduced Intensity Alternative would be developed on the same project site, have the same types of land uses carrying out the same activities, and be subject to the same regulations as the proposed project. Therefore, the Reduced Intensity Alternative would have similar impacts involving hazardous emissions or handling of hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school as the proposed project, and its overall impact related to hazards and hazardous materials would be similar as well.

h. Land Use and Planning

As discussed in Impact LU-1 in Section 4.8, *Land Use and Planning*, the proposed project is consistent with SCAG'S RTP/SCS, The City of Long Beach General Plan Land Use Element, the West Long Beach Business Parks Planned Development Zone, the Los Angeles River Master Plan, Long Beach RiverLink Plan, and the Lower Los Angeles River Revitalization Plan[2]. The proposed project would thus not conflict with applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect and impacts would be less than significant without mitigation.

The Reduced Intensity Alternative would be developed on the same project site, have the same types of land uses, and be subject to the same regulations as the proposed project. Although these uses would not conflict with applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect, this alternative would produce less economic development, job creation, and transportation improvements than the proposed project. Therefore, this alternative would not meet several of the City of Long Beach General Plan Land Use Element goals, SCAG's 2020 RTP/SCS policies, Los Angeles River Master Plan goals, and West Long Beach Business Park Planned Development Plan objectives discussed in Table 4.8-1 in Impact LU-1 in Section 4.8, *Land Use and Planning* as well as the proposed project. Examples of such goals, policies, and objectives include Goal 2 of the Land Use Element (Stimulate Continuous Economic Development and Job Growth); Goal 3 of the Land Use Element (Accommodate Strategic Growth and Change); and Strategy 14 of the Mobility Element (Reduce the air quality impacts of freight transportation and Port-related traffic). Therefore, the Reduced Intensity Alternative would have greater impacts relating to land use and planning than those of the proposed project.

i. Noise

As discussed in Impact N-1 in Section 4.9, *Noise*, construction of the proposed project would temporarily increase noise levels, potentially affecting nearby noise-sensitive land uses, and introduce new noise sources and contribute to increases in operational noise. As discussed in Impact N-2, the proposed project would also temporarily generate groundborne vibration, potentially affecting nearby land uses, but at levels well below applicable vibration damage thresholds. These impacts would be less than significant without mitigation.

While the proposed project's impacts related to noise are less than significant, the Reduced Intensity Alternative would reduce noise associated with construction and operation of the proposed project, and use of the site, because it would reduce the overall development intensity on the site. This could

[2] While the proposed project is consistent with the Los Angeles River Master Plan, the Long Beach RiverLink Plan, and the Lower Los Angeles River Revitalization Plan, these plans are not part of the General Plan or Zoning Regulations of the City of Long Beach and are not regulatory in nature or binding upon local land use planning and regulation.

lead to less construction activity required to build the project, and less construction noise and vibration. It would also reduce the amount of noise from project operation, since there would be less operational activity on the site, as well as fewer vehicle trips to and from the site. Therefore, this alternative's noise and vibration impacts would be less than those of the proposed project.

j. Public Services

As discussed in Section 4.10, *Public Services*, the proposed project would increase demand for public services but all impacts to public services would be less than significant without mitigation through application of standard regulatory requirements and development review procedures.

The Reduced Intensity Alternative would reduce demand for public services associated with development and increased use of the site because it would reduce the amount of development and number of people on the site. Therefore, this alternative's impacts relating to public services would be less than those of the proposed project.

k. Transportation

As discussed in impact TRA-1 in Section 4.11, *Transportation,* the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities and impacts would be less than significant without mitigation. The Reduced Intensity Alternative would comply with the same goals, policies and objectives as the proposed project and its impacts in this regard would be similarly less than significant.

As discussed in impact TRA-2 and shown in Table 4.11-3*,* the proposed project would not conflict with CEQA Guidelines section 15064.3(b) because the proposed project's 2027 Home-Based Work VMT per employee of 18.8 would be less than the County's baseline Home-Based Work VMT per capita of 20.2 and impacts would therefore be less than significant without mitigation. However, the proposed project would still result in both temporary construction traffic and long-term operational traffic that would be added to the area's street system. As discussed in Section 4.11.4, *Cumulative Impacts* and shown in Table 4.11-4, Home-Based Work VMT per employee in the 2045 Plus Project scenario (17.3) is lower than Home-Based Work VMT per employee in the 2045 No Project scenario (17.6). Therefore, it can be assumed that the Reduced Intensity Alternative would also have greater home-based VMT per employee than the proposed project because it would involve less development on the project site than the proposed project and this alternative's VMT impacts would be greater than those of the proposed project.

As discussed in impacts TRA-3 and TRA-4*,* the proposed project would not substantially increase hazards due to a design feature or incompatible uses and would not result in inadequate emergency access. The Reduced Intensity Alternative would include similar uses and design features as the proposed project and therefore, like the proposed project, its impacts would be less than significant without mitigation. The Reduced Intensity Alternative's impacts from hazardous design or inadequate emergency access would therefore be similar to those of the proposed project.

Because this alternative would have greater VMT impacts, its overall transportation impacts would be greater than those of the proposed project.

l. Tribal Cultural Resources

As discussed in Section 4.12, *Tribal Cultural Resources*, the proposed project may cause a substantial adverse change in the significance of an unknown tribal cultural resource because earthmoving

activities associated with the proposed project could expose previously undiscovered subsurface archaeological resources that may be considered tribal cultural resources and could be adversely affected by project construction. Implementation of mitigation measures TCR-1 and TCR-2 would reduce impacts to a less than significant level.

The Reduced Intensity Alternative would still involve development, including ground disturbance and construction, at the project site. As with the proposed project, implementation of mitigation measures TCR-1 and TCR-2 would reduce impacts to tribal cultural resources to a less than significant level. This alternative's impacts to tribal cultural resources would therefore be similar to those of the proposed project.

m. Utilities and Service Systems

As discussed in Section 4.13, *Utilities and Service Systems*, the proposed project would increase demand for utilities but all impacts would be less than significant without mitigation because no relocation or construction of utility services would be required to service the proposed project beyond connections to existing utilities; and City water supplies would be sufficient to serve the proposed project and reasonably foreseeable future development in normal, dry, and multiple dry years.

The Reduced Intensity Alternative would reduce demand for utilities associated with development and increased use of the site because it would reduce the amount of development on the site. Therefore, this alternative's impacts relating to utilities, while similarly less than significant without mitigation, would be less than those of the proposed project.

6.4 Environmentally Superior Alternative

The environmental analysis contained in the EIR has found that the proposed project has no significant and unavoidable environmental impacts. Adoption of a project alternative is therefore not necessary to avoid significant environmental impacts. However, each of the alternatives would incrementally reduce one or more of the proposed project's less than significant impacts, as discussed below. Table 6-3 indicates whether each alternative's environmental impact is greater, lesser, or similar to the proposed project in each environmental impact area discussed in this EIR.

Alternative 1, the No Project Alternative, would avoid almost all impacts of the proposed project's environmental impacts but would result in greater impacts to transportation and land use and planning. As described in Section 6.2, this alternative would not meet the project objectives listed in Section 2.0, *Project Description* and as the objectives are discussed in the descriptions of each alternative in this section.

Alternative 2, the Reduced Intensity Alternative, would reduce some of the impacts of the proposed project, increase impacts related to land use and planning and transportation (specifically VMT), and would have a similar level of impacts in all other impact areas. However, as described in Section 6.3, this alternative would not meet all the project objectives listed in Section 2.0, *Project Description* (and discussed in the descriptions of each alternative discussed in this section) as well as the proposed project.

Because it would avoid or reduce more of the proposed project's environmental impacts than the Reduced Intensity Alternative, the No Project Alternative would be the environmentally superior alternative.

Table 6-3 Impact Comparison of Alternatives

Issue	Proposed Project Impact Classification	Alternative 1: No Project Alternative	Alternative 2: Reduced Intensity Alternative
Air Quality	Less than Significant	+	+
Biological Resources	Less than Significant with Mitigation Incorporated	+	=
Cultural Resources	Less than Significant with Mitigation Incorporated	+	=
Energy	Less than Significant	+	+
Geology and Soils	Less than Significant with Mitigation Incorporated	+	=
Greenhouse Gas Emissions	Less than Significant with Mitigation Incorporated	+	+
Hazards and Hazardous Materials	Less than Significant	+	=
Land Use and Planning	Less than Significant	-	-
Noise	Less than Significant	+	+
Public Services	Less than Significant	+	+
Transportation	Less than Significant	-	-
Tribal Cultural Resources	Less than Significant with Mitigation Incorporated	+	=
Utilities and Service Systems	Less than Significant	+	+

+ Superior to the proposed project (reduced level of impact)

- Inferior to the proposed project (increased level of impact)

= Similar level of impact to the proposed project

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