

# IRWINDALE GATEWAY SPECIFIC PLAN DRAFT EIR

CITY OF IRWINDALE

## DRAFT ENVIRONMENTAL IMPACT REPORT

STATE CLEARINGHOUSE NO. 2023020290

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# IRWINDALE GATEWAY SPECIFIC PLAN

## DRAFT EIR

for City of Irwindale

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**City of Irwindale**

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## Abbreviations and Acronyms

### ABBREVIATIONS AND ACRONYMS

AAQS	ambient air quality standards
AB	Assembly Bill
ACM	asbestos-containing materials
ADT	average daily traffic
amsl	above mean sea level
AQMP	air quality management plan
AST	aboveground storage tank
BAU	business as usual
bgs	below ground surface
BMP	best management practices
CAA	Clean Air Act
CAFE	corporate average fuel economy
CalARP	California Accidental Release Prevention Program
CalEMA	California Emergency Management Agency
Cal/EPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
Cal/OSHA	California Occupational Safety and Health Administration
CalRecycle	California Department of Resources, Recycling, and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDE	California Department of Education
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
cfs	cubic feet per second
CGS	California Geologic Survey
CMP	congestion management program

## Abbreviations and Acronyms

CNDDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CO	carbon monoxide
CO <sub>2</sub> e	carbon dioxide equivalent
Corps	US Army Corps of Engineers
CSO	combined sewer overflows
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel
dba	A-weighted decibel
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EIR	environmental impact report
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHG	greenhouse gases
GWP	global warming potential
HCM	Highway Capacity Manual
HQTA	high quality transit area
HVAC	heating, ventilating, and air conditioning system
IPCC	Intergovernmental Panel on Climate Change
L <sub>dn</sub>	day-night noise level
L <sub>eq</sub>	equivalent continuous noise level
LBP	lead-based paint
LCFS	low-carbon fuel standard
LOS	level of service
LST	localized significance thresholds
M <sub>w</sub>	moment magnitude
MCL	maximum contaminant level
MEP	maximum extent practicable

## Abbreviations and Acronyms

mgd	million gallons per day
MMT	million metric tons
MPO	metropolitan planning organization
MT	metric ton
MWD	Metropolitan Water District of Southern California
NAHC	Native American Heritage Commission
NO <sub>x</sub>	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
O <sub>3</sub>	ozone
OES	California Office of Emergency Services
PM	particulate matter
POTW	publicly owned treatment works
ppm	parts per million
PPV	peak particle velocity
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RMP	risk management plan
RMS	root mean square
RPS	renewable portfolio standard
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SIP	state implementation plan
SLM	sound level meter
SoCAB	South Coast Air Basin
SO <sub>x</sub>	sulfur oxides
SQMP	stormwater quality management plan
SRA	source receptor area [or state responsibility area]
SUSMP	standard urban stormwater mitigation plan
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board

## Abbreviations and Acronyms

TAC	toxic air contaminants
TNM	transportation noise model
tpd	tons per day
TRI	toxic release inventory
TTCP	traditional tribal cultural places
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
UWMP	urban water management plan
V/C	volume-to-capacity ratio
VdB	velocity decibels
VHFHSZ	very high fire hazard severity zone
VMT	vehicle miles traveled
VOC	volatile organic compound
WQMP	water quality management plan
WSA	water supply assessment

## Abbreviations and Acronyms

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# 1. Executive Summary

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## 1.1 INTRODUCTION

This draft environmental impact report (DEIR) addresses the environmental effects associated with the implementation of the Irwindale Gateway Specific Plan (proposed project). The California Environmental Quality Act (CEQA) requires that local government agencies consider the environmental consequences before taking action on projects over which they have discretionary approval authority. An environmental impact report (EIR) analyzes potential environmental consequences in order to inform the public and support informed decisions by local and state governmental agency decision makers.

This DEIR has been prepared pursuant to the requirements of CEQA and the City of Irwindale's CEQA procedures. The City of Irwindale, as the lead agency, has reviewed and revised all submitted drafts, technical studies, and reports as necessary to reflect its own independent judgment, including reliance on City technical personnel from other departments and review of all technical subconsultant reports.

Data for this DEIR derive from onsite field observations, discussions with affected agencies, analysis of adopted plans and policies, review of available studies, reports, data and similar literature, and specialized environmental assessments (air quality, energy, geological resources, hazards and hazardous materials, hydrology and water quality, noise and vibration, transportation and traffic, and utilities and service systems).

## 1.2 ENVIRONMENTAL PROCEDURES

This DEIR has been prepared pursuant to CEQA to assess the environmental effects associated with implementation of the proposed project, as well as anticipated future discretionary actions and approvals. CEQA established six main objectives for an EIR:

1. Disclose to decision makers and the public the significant environmental effects of proposed activities.
2. Identify ways to avoid or reduce environmental damage.
3. Prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures.
4. Disclose to the public reasons for agency approval of projects with significant environmental effects.
5. Foster interagency coordination in the review of projects.
6. Enhance public participation in the planning process.

An EIR is the most comprehensive form of environmental documentation in CEQA and the CEQA Guidelines; it is intended to provide an objective, factually supported analysis and full disclosure of the

## 1. Executive Summary

environmental consequences of a proposed project with the potential to result in significant, adverse environmental impacts.

An EIR is one of various decision-making tools used by a lead agency to consider the merits and disadvantages of a project that is subject to its discretionary authority. Before approving a proposed project, the lead agency must consider the information in the EIR; determine whether the EIR was prepared in accordance with CEQA and the CEQA Guidelines; determine that it reflects the independent judgment of the lead agency; adopt findings concerning the project's significant environmental impacts and alternatives; and adopt a statement of overriding considerations if significant impacts cannot be avoided.

### 1.2.1 EIR Format

**Chapter 1. Executive Summary:** Summarizes the background and description of the proposed project, the format of this EIR, project alternatives, any critical issues remaining to be resolved, and the potential environmental impacts and mitigation measures identified for the project.

**Chapter 2. Introduction:** Describes the purpose of this EIR, background on the project, the notice of preparation, the use of incorporation by reference, and Final EIR certification.

**Chapter 3. Project Description:** A detailed description of the project, including its objectives, its area and location, approvals anticipated to be required as part of the project, necessary environmental clearances, and the intended uses of this EIR.

**Chapter 4. Environmental Setting:** A description of the physical environmental conditions in the vicinity of the project as they existed at the time the notice of preparation was published, from local and regional perspectives. These provide the baseline physical conditions from which the lead agency determines the significance of the project's environmental impacts.

**Chapter 5. Environmental Analysis:** Each environmental topic is analyzed in a separate section that discusses: the thresholds used to determine if a significant impact would occur; the methodology to identify and evaluate the potential impacts of the project; the existing environmental setting; the potential adverse and beneficial effects of the project; the level of impact significance before mitigation; the mitigation measures for the proposed project; the level of significance after mitigation is incorporated; and the potential cumulative impacts of the proposed project and other existing, approved, and proposed development in the area.

**Chapter 6. Significant Unavoidable Adverse Impacts:** Describes the significant unavoidable adverse impacts of the proposed project.

**Chapter 7. Alternatives to the Proposed Project:** Describes the alternatives and compares their impacts to the impacts of the proposed project. Alternatives include the No Project Alternative and a Reduced Intensity Alternative.

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**Chapter 8. Impacts Found Not to Be Significant:** Briefly describes the potential impacts of the project that were determined not to be significant by the Initial Study and were therefore not discussed in detail in this EIR.

**Chapter 9. Significant Irreversible Changes Due to the Proposed Project:** Describes the significant irreversible environmental changes associated with the project.

**Chapter 10. Growth-Inducing Impacts of the Project:** Describes the ways in which the proposed project would cause increases in employment or population that could result in new physical or environmental impacts.

**Chapter 11. Organizations and Persons Consulted:** Lists the people and organizations that were contacted during the preparation of this EIR.

**Chapter 12. Qualifications of Persons Preparing EIR:** Lists the people who prepared this EIR for the proposed project.

**Chapter 13. Bibliography:** The technical reports and other sources used to prepare this EIR.

**Appendices:** The appendices for this document comprise these supporting documents:

- Appendix A1: Notice of Preparation
- Appendix A2: Notice of Preparation Comments and Scoping Meeting Sign-In Sheet and Comments
- Appendix B: Irwindale Gateway Specific Plan
- Appendix C: Grading Plan and Approval Letters
- Appendix D1: Air Quality and Greenhouse Gas Emissions Analysis
- Appendix D2: Health Risk Assessment
- Appendix E: AB 52 Correspondence with Tribes
- Appendix F: Energy Report
- Appendix G1: Geotechnical Engineering Summary Report
- Appendix G2: Rough Grading Plan
- Appendix H: Phase I Environmental Site Assessment
- Appendix I1: Hydrology Report
- Appendix I2: Preliminary LID Report
- Appendix J: Noise and Vibration Analysis
- Appendix L1a: Irwindale Gateway VMT Analysis Memo
- Appendix L1b: Irwindale Gateway SP Project Alternatives – Trip Generation and VMT Comparison
- Appendix L2: Traffic Impact Analysis
- Appendix M1: Utility Study
- Appendix M2: Sewer Area
- Appendix M3: Water Supply Assessment
- Appendix N: Irwindale Gateway Retail Hotel Report

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### 1.2.2 Type and Purpose of This DEIR

This DEIR has been prepared as a “Project EIR,” defined by Section 15161 of the CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3). This type of EIR examines the environmental impacts of a specific development project and 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.

### 1.3 PROJECT LOCATION

The Irwindale Gateway Specific Plan (Specific Plan) area is in the City of Irwindale in eastern Los Angeles County. The 66.64-acre site is at 13620 Live Oak Lane in the central portion of Irwindale. It is adjacent and to the east of Interstate 605 (I-605), approximately 1.5 miles south of I-210, and 2.7 miles north of I-10. The project site encompasses a former sand and gravel quarry, the NuWay Live Oak Inert Landfill (NuWay Landfill), and a former street-cleaning business. The site is bounded by I-605 to the west, Live Oak Lane to the north and east, and Live Oak Avenue to the south (see Figure 3-2, *Local Vicinity*, and Figure 3-3, *Aerial Photograph*). Arrow Highway also abuts part of the northern project site boundary. The project site consists of Assessor’s Parcel Numbers (APNs) 8532-002-046 and 8532-002-047. A 9.61-acre easement owned by Southern California Edison along the west side of the project site is inside the project boundary. The site also includes 4.38 acres of right-of-way dedications. The site does not include the industrial uses (APNs 8532-002-036, 8532-002-040, and 8532-002-043) that are between the northeast part of the project site and Live Oak Lane, nor does the site boundary include the parcel owned by the Valley County Water District (APN 8532-002-904) at the southeastern corner of the project site.

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### 1.4 PROJECT SUMMARY

The Specific Plan outlines two options for the development of the project site. A land use comparison is shown in Table 1-1, *Proposed Land Use, Option 1 and Option 2*.

**Table 1-1 Proposed Land Use, Option 1 and Option 2**

Development Option	Land Use	Acres	Permitted Building/Structure Use	Square Feet/Other Details
Option 1	Industrial/Business Park	52.65 ac	General light industrial, manufacturing, warehouse/distribution, e-commerce fulfillment center	<ul style="list-style-type: none"> <li>Up to 1,000,000 sf of building space</li> <li>Conceptual plan: 954,796 sf of warehouse space and 43,000 sf of office space</li> </ul>
Option 2	Industrial/Business Park	36.71 ac	General light industrial, manufacturing, warehouse/distribution, e-commerce fulfillment center	<ul style="list-style-type: none"> <li>Up to 705,000 sf of building space</li> <li>Conceptual plan: 668,070 sf of warehouse space and 36,000 sf of office space</li> </ul>
	Battery Energy Storage System (BESS)	15.94 ac	Electric energy storage, transmission, and AC/DC and voltage conversion	<ul style="list-style-type: none"> <li>Battery/Inverter/medium voltage transformer array area: Appx. 353,000 sf</li> <li>Roads and parking: Appx. 91,000 sf</li> <li>Collector Substation: Appx. 87,000 sf</li> <li>Aux. Transformer Pads: Appx. 2,000 sf</li> </ul>

#### 1.4.1 Option 1

Option 1 designates a 52.65-acre parcel on the project site as Industrial/Business Park. The conceptual plan under Option 1 includes an industrial logistics and distribution center with three buildings and associated parking and loading docks (see Figure 3-7, *Option 1 Site Plan*). The three buildings would allow a maximum of 997,796 square feet of building space—954,796 square feet of warehouse space and 43,000 square feet of office space (see Table 1-2, *Building Square Footage, Option 1*). Trailer, truck, and/or car parking would be included throughout the project site.

**Table 1-2 Building Square Footage, Option 1**

Buildings	Building Square Feet		
	Warehouse	Office	Total
Building 1	222,910	10,000	232,910
Building 2	660,776	30,000	690,776
Building 3	71,110	3,000	74,110
<b>Total</b>	<b>954,796</b>	<b>43,000</b>	<b>997,796</b>

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### 1.4.2 Option 2

Under Option 2, the land use plan would include a 36.71-acre Industrial/Business Park parcel and a 15.94-acre parcel for the BESS (see Figure 3-8, *Option 2 Site Plan*). Option 2 would consist of two industrial buildings and a 400-megawatt BESS. The two buildings would allow a maximum of 704,070 square feet—668,070 square feet of warehouse space and 36,000 square feet of office space (see Table 1-3, *Building Square Footage, Option 2*).

The preliminary design for the BESS includes approximately 353,000 square feet of the site encompassing battery arrays within which battery enclosures, inverter enclosures, and medium voltage transformers would be arranged. The specific equipment models to be used would be determined prior to final design. The enclosures and medium voltage transformers are typically less than 10 feet in height. The battery and inverter enclosures would be constructed of metal and purpose-built. Inverters would be bi-directional, accommodating both charging from the grid and delivering energy back to the grid. The battery enclosures house lithium-ion batteries, fire prevention and detection systems, monitoring and control systems, and cooling units. Battery and inverter containers could be double stacked allowing for more storage capacity. Other equipment would include gas detection equipment, electrical switching equipment, auxiliary power panels, computer and telecommunications equipment, and switchgear. The medium voltage transformers would be connected to an onsite collector substation via underground conductor cables. The collector substation would encompass approximately two acres. .

**Table 1-3 Building Square Footage, Option 2**

Buildings	Building Square Feet		
	Warehouse	Office	Total
Building 1	599,960	30,000	626,960
Building 2	71,110	6,000	77,110
Total	668,070	36,000	704,070

Option 2 would also consist of an overhead electric tie-line for the BESS, including three 220 kV conductor cables below an optical ground wire that serves dual purposes of grounding and fiber optic communications. Additionally, interconnection facilities proposed to connect the BESS to the transmission system include substation work at SCE’s Rio Hondo substation, a new generation-tie transmission line, and a new project substation.

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### 1.5 SUMMARY OF PROJECT ALTERNATIVES

Four alternatives have been determined to represent a reasonable range of alternatives which have the potential to feasibly attain most of the basic objectives of the proposed project but which may avoid or substantially lessen any of the significant effects of the project. These alternatives are analyzed in detail in Chapter 7, *Alternatives*.

- No Project/No Development Alternative
- Existing General Plan Alternative
- Reduced Intensity Alternative
- Truck Trailer Storage Alternative

### 1.6 NO PROJECT/NO DEVELOPMENT ALTERNATIVE

This alternative would involve no development on the project site. However, as with the proposed project, the Nu-Way Live Oak Reclamation Operations Plan (Operations Plan) would be fully implemented under this alternative. The landfill reclamation plan was approved prior to release of the NOP for the proposed project and is not a part of the proposed project. Therefore, the site would be rough graded in accordance with the Operations Plan and any remaining structures would be removed. The site would then remain undeveloped.

Impacts of the No Project/No Development Alternative would be similar for agricultural, biological, and mineral resources; population and housing; and recreation. Impacts would be less for air quality, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, noise, public services, tribal cultural resources, utilities and service systems, and wildfire. Impacts would be greater for aesthetics, hydrology and water quality, and transportation. The significant, unavoidable project-related impacts would be eliminated under the No Project alternative. Overall, impacts under this alternative would be decreased in comparison to the proposed project.

The No Project/No Development Alternative does not meet any of the proposed project's objectives.

### 1.7 EXISTING GENERAL PLAN ALTERNATIVE

Under this alternative, the site would be developed consistent with the existing land use designation, Regional Commercial (RC). The RC land use designation encourages a mix of commercial, office professional, and light manufacturing uses along a number of high-visibility traffic corridors. The site is zoned M-2 (Heavy Manufacturing) for which the zoning ordinance describes a variety of over 100 different allowed manufacturing-type uses. The RC designation defines a floor area ratio of 2.0 to 1.0, and the current zone does not have a maximum building height. The market analysis for the project site concludes that the site could support the development of smaller format, convenience retail centers serving the local workforce and drive-by traffic along I-605. Specifically, this alternative includes a total of 10,000 square feet to support a fast-food restaurant, gas station, and convenience mart, as described in TCG report. Since a new Specific Plan use would require a General Plan Amendment, this alternative only includes one option and assumes a

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floor area ratio (FAR) of 2.0 for the manufacturing use on approximately 49 acres, resulting in approximately 4.3 million square feet [SF] along with the 10,000 SF of retail use.

Impacts of the Existing General Plan Alternative would be similar for agricultural, biological, and cultural resources; hazards and hazardous materials; hydrology and water quality; mineral resources; recreation; transportation; tribal cultural resources; and wildfire. Impacts would be less for land use and planning systems. Impacts would be greater for aesthetics, air quality, energy, geology and soils, greenhouse gases, noise, population and housing, public services, and utilities. As with the proposed project, impacts to air quality and greenhouse gas emissions would remain significant and unavoidable. Overall, impacts under this alternative would increase in comparison to the proposed project.

The Existing General Plan Alternative would meet two of the project objectives.

### 1.7.1 Reduced Intensity Alternative

This alternative includes the same land uses as the proposed project but assumes that the warehousing square footage is reduced to a level that would eliminate the significant greenhouse gas emissions impact of the proposed project. It would accommodate up to 116,018 warehousing SF plus 5,225 SF of office space (12 percent of proposed project's SF) and could be designed with a BESS use (which is assumed to be the same acreage as the proposed project) as a second option. The warehousing square footage for the BESS option is reduced in the same proportion as the Option 1 reduction (12 percent of the warehousing SF for proposed project Option 2).

Impacts of the Reduced Intensity Alternative would be similar for agricultural resources; biological resources; geology and soils; hydrology and water quality; mineral resources; population and housing; recreation; transportation; and wildfire. Impacts would be less for air quality, cultural resources, greenhouse gas emissions, hazards and hazardous materials, noise, public services, tribal cultural resources, and utilities and service systems. Impacts would be greater for aesthetics and land use and planning. This alternative would eliminate the significant, unavoidable impact to greenhouses gases. Overall, impacts under this alternative would be decreased in comparison to the proposed project.

The Reduced Intensity Alternative would meet all of the project objectives.

### 1.7.2 Truck Trailer Storage Alternative

This alternative was previously considered by the project applicant. A conceptual site plan is shown on Figure 7-1, *Truck Trailer Parking Project Alternative*. The plan included a total of 2,062 tractor trailer parking stalls and a 40,726 SF building accommodating warehousing and office space. This alternative was considered for the entire site, and an Option 2 is not included.

Impacts of the Truck Trailer Storage Alternative would be similar for agricultural, biological, and cultural resources; hydrology and water quality; mineral resources; noise; population and housing; recreation; transportation; tribal cultural resources; and wildfire. Impacts would be less for air quality, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, public services, and utilities and service

## 1. Executive Summary

systems. Impacts would be greater for aesthetics and land use and planning. As with the proposed project, impacts to air quality and greenhouse gas emissions would remain significant and unavoidable. Overall, impacts under this alternative would be decreased in comparison to the proposed project.

The Truck Trailer Storage Alternative would meet two of the project objectives.

### 1.8 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contain issues to be resolved, including the choice among alternatives and whether or how to mitigate significant impacts. With regard to the proposed project, the major issues to be resolved include decisions by the lead agency as to:

1. Whether this DEIR adequately describes the environmental impacts of the project.
2. Whether the benefits of the project override those environmental impacts which cannot be feasibly avoided or mitigated to a level of insignificance.
3. Whether the proposed land use changes are compatible with the character of the existing area.
4. Whether the identified goals, policies, or mitigation measures should be adopted or modified.
5. Whether there are other mitigation measures that should be applied to the project besides the Mitigation Measures identified in the DEIR.
6. Whether there are any alternatives to the project that would substantially lessen any of the significant impacts of the proposed project and achieve most of the basic project objectives.

### 1.9 AREAS OF CONTROVERSY

At the time of preparation of this Draft EIR, there are no known areas of controversy. A Public Scoping meeting was noticed and held on March 2, 2023, to elicit comments on the scope of the DEIR. Responses to the Notice of Preparation are summarized in Table 2-2, *NOP Written Comments Summary*. Comments were received from the City of Covina, Native American Heritage Commission, California Department of Justice, California Department of Resources Recycling and Recovery, California Department of Fish and Wildlife, South Coast Air Quality Management District, and Southern California Association of Governments as well as from three residents. Comments from these agencies and individuals have been addressed within the topical sections of this EIR, where applicable.

### 1.10 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Table 1-4 summarizes the conclusions of the environmental analysis contained in this EIR. Impacts are identified as significant or less than significant, and mitigation measures are identified for all significant impacts. The level of significance after imposition of the mitigation measures is also presented.

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# 1. Executive Summary

**Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<b>5.1 AESTHETICS</b>			
<b>Impact 5.1-1:</b> The proposed project would not have a substantial adverse effect on a scenic vista.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.1-2:</b> The proposed project would not alter scenic resources within a state scenic highway	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.1-3:</b> The proposed project is within an urbanized area and would not conflict with applicable zoning and other regulations governing scenic quality.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.1-4:</b> The proposed project would not generate additional light and glare.	Less than significant	No mitigation measures are required.	Less than significant
<b>5.2 AIR QUALITY</b>			
<b>Impact 5.2-1:</b> The proposed project would conflict with or obstruct implementation of the applicable air quality plan (the South Coast AQMD AQMP).	Potentially significant	See Mitigation Measures GHG-1, GHG-3, GHG-4, GHG-7, T-1, and T-2. AQ-1 The construction contractor shall specify in the construction bid that the construction contractor(s) shall only use interior and exterior paints with a low VOC (volatile organic compound) content with a maximum concentration of 0 grams per liter (g/L) for building architectural coating during construction and for future coating to reduce VOC emissions. All building and site plans shall note use of paints with a maximum VOC concentration of 0 g/L. Prior to construction, the construction contractor(s) shall ensure that all construction plans submitted to the City of Irwindale Community Development Department clearly show this requirement.	Significant and unavoidable
<b>Impact 5.2-2:</b> Construction and operation associated with the proposed project under Option 1 and Option 2 would result in a cumulatively considerable net increase of criteria pollutants that exceed South Coast AQMD's threshold criteria.	Potentially significant	See Mitigation Measures AQ-1, GHG-3, and GHG-7.	Less than significant

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**Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p><b>Impact 5.2-3:</b> The proposed project would not expose sensitive receptors to substantial pollutant concentrations during construction or operation.</p>	<p>Less than significant</p>	<p>No mitigation measures are required.</p>	<p>Less than significant</p>
<p><b>Impact 5.2-4:</b> The proposed project would result in other emissions that would adversely affect a substantial number of people.</p>	<p>Potentially significant.</p>	<p>AQ-2</p> <p>Prior to future discretionary approval, if it is determined that a project has the potential to emit nuisance odors beyond the property line, an odor management plan shall be prepared by the project applicant, subject to review and approval by the City of Irwindale Community Development Department. Facilities that have the potential to generate nuisance odors include but are not limited to:</p> <ul style="list-style-type: none"> <li>• Wastewater treatment plants</li> <li>• Composting, green waste, or recycling facilities</li> <li>• Fiberglass manufacturing facilities</li> <li>• Painting/coating operations</li> <li>• Large-capacity coffee roasters</li> <li>• Food-processing facilities</li> </ul> <p>The odor management plan shall show compliance with the South Coast Air Quality Management District’s Rule 402 for nuisance odors. The odor management plan shall identify the best available control technologies for toxics (T-BACTs) that will be utilized to reduce potential odors to acceptable levels, including appropriate enforcement mechanisms. T-BACTs may include, but are not limited to scrubbers (i.e., air pollution control devices) at the industrial facility. T-BACTs identified in the odor management plan shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.</p>	<p>Less than significant</p>

## 1. Executive Summary

**Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<b>5.3 CULTURAL RESOURCES</b>			
<b>Impact 5.4-1:</b> Development of the project could impact an identified historic resource.	No impact	No mitigation measures are required.	No impact
<b>Impact 5.4-2:</b> Development of the project could impact archaeological resources.	Potentially significant	<p>CUL-1 Prior to the issuance of any permits allowing ground-disturbing activities, the project proponent/operator shall retain a Qualified Archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology (U.S. Department of the Interior, 2011), to carry out all mitigation measures related to archaeological resources. The contact information for this Qualified Archaeologist shall be provided to the City of Irwindale Planning Department prior to the commencement of any construction activities on-site.</p> <p>CUL-2 In the event that unanticipated cultural resources are encountered during any phase of project construction, all construction work within 50 feet of the find shall cease, and the Qualified Archaeologist and designated Native American representative, as defined in Mitigation Measure TCR-2, shall assess the find for importance. Construction activities may continue in other areas. If the discovery is determined to not be significant by the Qualified Archaeologist and/or designated Native American representative, work will be permitted to continue in the area.</p> <p>If a find is determined to be important by the Qualified Archaeologist and designated Native American representative, he or she shall immediately notify the City. The City shall consult on a finding of eligibility and implement appropriate treatment measures if the find is determined to be eligible for inclusion in the California Register of Historical Resources (CRHR). Work may not resume within the no-work radius until the lead agency, through consultation as appropriate, determines that the site either: (1) is not eligible for the CRHR; or (2) treatment measures have been completed to its satisfaction.</p>	Less than significant

# 1. Executive Summary

**Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<b>Impact 5.4-3:</b> Grading activities could potentially disturb human remains.	Less than significant	No mitigation measures are required.	Less than significant
<b>5.4 ENERGY</b>			
<b>Impact 5.4-1:</b> Implementation of the proposed project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.	Less than significant	No mitigation measures are required.	Less than significant
<b>5.5 GEOLOGY AND SOILS</b>			
<b>Impact 5.5-1:</b> Project occupants would be subject to potential seismic-related hazards.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.5-2:</b> Unstable geologic unit or soils conditions, including soil erosion, could not result from development of the project.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.5-3:</b> Soil conditions would not result in risks to life or property.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.5-4:</b> The proposed project would not require the use of septic tanks	No impact	No mitigation measures are required.	No impact
<b>Impact 5.5-5:</b> There is a low likelihood that the project could destroy a unique paleontological resource or site or unique geologic feature.	Less than significant	No mitigation measures are required.	Less than significant
<b>5.6 GREENHOUSE GAS EMISSIONS</b>			
<b>Impact 5.6-1:</b> The proposed project would generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment.	Potentially significant	GHG-1 Prior to the issuance of building permits, the Project Applicant shall provide documentation to the City demonstrating that the project shall install measures listed below. Implementation of these measures shall be verified by the City prior to the issuance of final certificate of occupancy. <ul style="list-style-type: none"> <li>All-electric energy systems.</li> <li>Enhanced window insulation (0.4 U-factor, 0.32 SHGC).</li> </ul>	Significant and unavoidable

1. Executive Summary

**Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> <li>• Duct insulation (R-6).</li> <li>• High efficiency HVAC (EER 15/80 percent AFUE or 8 HSPF).</li> <li>• Weather-based irrigation control systems combined with drip irrigation.</li> <li>• Low flow toilets, urinals, and bathroom faucets to reduce water usage.</li> </ul> <p>GHG-2 Prior to issuance of an occupancy permit for a new tenant/business entity, the new tenant/business entity shall provide documentation to the City demonstrating the proposed project's buildings would consume 100 percent carbon-free electricity, when feasible. Measures to achieve 100 percent carbon-free electricity use for the proposed project's buildings may include, but are not limited to, plans for 100 percent renewable electricity.</p> <p>GHG-3 Prior to issuance of an occupancy permit for a new tenant/business entity, the project developer/facility owner and tenant/business entity shall provide to the City of Irwindale Community Development Department a signed document (verification document) noting that the project development/facility owner has disclosed to the tenant/business entity the requirement to implement the following measures:</p> <ul style="list-style-type: none"> <li>• A solar photovoltaic (PV) system associated with proposed project buildings.</li> <li>• High-efficiency lights (&gt;50 percent of fixtures) to reduce energy usage.</li> <li>• All landscape equipment (e.g., leaf blower) used for property management shall be electric powered only.</li> </ul> <p>The property manager/facility owner shall provide documentation (e.g., purchase, rental, and/or services agreement) to the Planning Department to verify, to the City's satisfaction, that all landscaping equipment utilized will be electric powered, as allowed.</p> <p>All on-site outdoor cargo-handling equipment (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, generators, pumps, and other on-site equipment) shall be electric or non-diesel fueled. All on-site indoor forklifts shall be powered by electricity.</p> <p>All truck/dock bays that serve cold storage facilities within the proposed buildings shall be electrified to facilitate plug-in capabilities and support use of</p>	

# 1. Executive Summary

**Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>electric standby and/or hybrid electric transport refrigeration units.</p> <p>Prior to the issuance of a building permit, the site plan shall include the minimum number of automobile electric vehicle charging stations required by the California Code of Regulations Title 24.</p> <p>This verification document shall be signed by authorized agents for the project developer/facility owner and tenant/business entities. In addition, if applicable, the tenant/business entity shall provide documentation (e.g., purchase or rental agreement) to the City of Irwindale Community Development Department to verify, to the City's satisfaction, compliance with these measures.</p> <p>GHG-4 Prior to the issuance of a building permit, the Project Applicant shall provide documentation to the City demonstrating that the project buildings' electrical room is sufficiently sized to hold additional panels that may be needed to supply power for future installation of electric charging systems for electric trucks and power transport refrigeration units (TRUs). Conduit shall be installed from the electrical room to tractor-trailer parking spaces in logical locations on-site to facilitate future electric truck charging. Conduit shall be installed between the electrical room and the loading docks to facilitate the use of electric plug-in TRUs.</p> <p>GHG-5 Prior to issuance of occupancy permits, the tenant/business entity shall prepare and submit a Transportation Demand Management (TDM) Program detailing strategies for reducing the use of single occupant vehicles by employees by increasing carpool/vanpool participation and transit use. Additionally, the TDM program may provide for alternative work or compressed work schedules to reduce the number of days an employee commutes to work.</p> <p>GHG-6 Prior to the issuance of a building permit, the site plan shall include surface parking lots to provide parking for low-emitting, fuel-efficient, and carpool/van vehicles associated with trips to the proposed project's buildings. At minimum, the number of preferential parking spaces shall equal to the Tier 2 Nonresidential Voluntary Measures of CALGreen Section A5.106.5.1.2. In addition, the site plan shall also include automobile electric vehicle charging</p>	

# 1. Executive Summary

**Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		stations equal to the Tier 2 Nonresidential Voluntary Measures of CALGreen. GHG-7 Prior to issuance of an occupancy permit, a new tenant/business entity shall place legible, durable, weather-proof signs at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than five minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; and 3) telephone numbers of the building facilities manager and CARB to report violations. The City shall conduct a site inspection to ensure that the signs are in place.	
<b>Impact 5.6-2:</b> The proposed project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Less than significant	No mitigation measures are required.	Less than significant
<b>5.7 HAZARDS AND HAZARDOUS MATERIALS</b>			
<b>Impact 5.7-1:</b> Project construction and/or operations would involve the transport, use, and/or disposal of hazardous materials.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.7-2:</b> Although the project site is on a list of hazardous materials sites, the site received regulatory closure in 1991 and would not create a hazard to the public or the environment.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.7-3:</b> The project site is not located in the vicinity of an airport or within the jurisdiction of an airport land use plan.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.7-4:</b> Project development would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less than significant	No mitigation measures are required.	Less than significant

# 1. Executive Summary

**Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<b>Impact 5.7-5:</b> The proposed project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.	Less than significant	No mitigation measures are required.	Less than significant
<b>5.8 HYDROLOGY AND WATER QUALITY</b>			
<b>Impact 5.8-1:</b> Construction and operation of development accommodated by the Specific Plan would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.8-2:</b> Construction and operation of the development accommodated by the Specific Plan would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Specific Plan may impede sustainable groundwater management of the basin.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.8-3:</b> Construction and/or operation of the development accommodated by the Specific Plan would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in a substantial erosion or siltation on- or off-site, flooding on- or offsite, or create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	Less than significant	No mitigation measures are required.	Less than significant

# 1. Executive Summary

**Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<b>Impact 5.8-4:</b> Construction and/or operation of the development accommodated by the Specific Plan would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows or risk release of pollutants due to project inundation.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.8-5:</b> Construction and/or operation of development accommodated by the Specific Plan would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Less than significant	No mitigation measures are required.	Less than significant
<b>5.9 LAND USE AND PLANNING</b>			
<b>Impact 5.9-1:</b> Project implementation would not divide an established community.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.9-2:</b> Project implementation would not conflict with applicable plans adopted for the purpose of avoiding or mitigating an environmental effect.	Less than significant	No mitigation measures are required.	Less than significant
<b>5.10 MINERAL RESOURCES</b>			
<b>Impact 5.10-1:</b> Project implementation would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.10-2:</b> Project implementation would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.	Less than significant	No mitigation measures are required.	Less than significant

# 1. Executive Summary

**Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<b>5.11 NOISE</b>			
<b>Impact 5.11-1:</b> Construction activities would result in temporary noise increases in the vicinity of the proposed project that would not exceed local standards or cause a substantial increase in ambient noise levels.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.11-2:</b> Project implementation would result in long-term operation-related noise that would not exceed local standards or cause a substantial increase over ambient.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.11-3:</b> The project would not create excessive groundborne vibration and groundborne noise from short term construction or long term construction activity.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.11-4:</b> The proximity of the project site to an airport would not result in exposure of future resident and/or workers to airport-related noise.	Less than significant	No mitigation measures are required.	Less than significant
<b>5.12 PUBLIC SERVICES</b>			
<b>FIRE PROTECTION AND EMERGENCY SERVICES</b>			
<b>Impact 5.12-1:</b> The proposed project would introduce new structures and workers into the Los Angeles County Fire Department service boundaries, thereby increasing the requirement for fire protection facilities and personnel.	Less than significant	No mitigation measures are required.	Less than significant

## 1. Executive Summary

**Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<b>POLICE PROTECTION</b>			
<b>Impact 5.12-2:</b> The proposed project would introduce new structures and workers into the Irwindale Police Department service boundaries, thereby increasing the requirement for police protection facilities and personnel.	Less than significant	No mitigation measures are required.	Less than significant
<b>SCHOOL SERVICES</b>			
<b>Impact 5.12-3:</b> The proposed project would not generate new students and therefore, would not impact the school enrollment capacities of area schools.	Less than significant	No mitigation measures are required.	Less than significant
<b>LIBRARY SERVICES</b>			
<b>Impact 5.12-4:</b> The proposed project would not result in a substantial adverse physical impact associated with the provisions of new or physically altered library facilities, need for new or physically altered library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable performance objectives for library services.	Less than significant	No mitigation measures are required.	Less than significant
<b>5.13 TRANSPORTATION</b>			
<b>Impact 5.13-1:</b> Development accommodated by the Specific Plan would not result in a conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	Less than significant	No mitigation measures are required.	Less than significant

# 1. Executive Summary

**Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p><b>Impact 5.13-2:</b> Development accommodated by the Specific Plan would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).</p>	<p>Potentially Significant.</p>	<p>T-1 The Applicant shall coordinate with Foothill Transit and the City of Irwindale to install a bus stop at Live Oak Avenue and Live Oak Lane for the Foothill Transit Line 492. The design and installation of the bus stop shall be coordinated with Foothill Transit and shall be paid for by the project applicant. The bus stop shall be constructed prior to the issuance of an occupancy permit for the first development project on the project site.</p> <p>T-2 The Applicant shall modify the public sidewalk and landscaping along the north side of the portion of Live Oak Avenue that abuts the project site to include accommodation of a Class IV trail consistent with the City of Irwindale Active Transportation Plan to create a portion of the connection to the San Gabriel River Trail. Prior to the issuance of grading plans, the Applicant shall submit the required improvement plans for the Class IV trail to the City of Irwindale’s Public Works Department for review and approval.</p>	<p>Less than significant</p>
<p><b>Impact 5.13-3:</b> Development accommodated by the Specific Plan would not increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).</p>	<p>Less than significant</p>	<p>No mitigation measures are required.</p>	<p>Less than significant.</p>
<p><b>Impact 5.13-4:</b> Development accommodated by the Specific Plan would not result in inadequate emergency access.</p>	<p>Less than significant</p>	<p>No mitigation measures are required.</p>	<p>Less than significant</p>
<p><b>5.14 TRIBAL CULTURAL RESOURCES</b></p>			
<p><b>Impact 5.14-1:</b> The proposed project would cause a substantial adverse change in the significance of a tribal cultural resource 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).</p>	<p>No impact.</p>	<p>No mitigation measures are required.</p>	<p>No impact</p>

# 1. Executive Summary

**Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p><b>Impact 5.14-2:</b> The proposed project would cause a substantial adverse change in the significance of a tribal cultural resource that is determined by the lead agency to be significant pursuant to criteria in Public Resources Code section 5024.1(c).</p>	<p>Potentially significant.</p>	<p>TCR-1 The project applicant 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.</p> <p>A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.</p> <p>The monitor shall complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered Tribal Cultural Resources (TCRs), including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or “TCR”), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs shall be provided to the project applicant/lead agency upon written request to the Tribe.</p> <p>On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the project applicant/lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.</p> <p>TCR-2 Upon discovery of any TCRs, all construction activities in the immediate</p>	<p>Less than significant</p>

# 1. Executive Summary

**Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh monitor and/or Kizh archaeologist. The Kizh shall recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.</p> <p>TCR-3 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.</p> <p>If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resource Code 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2). Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.</p>	
<b>5.15 UTILITIES AND SERVICE SYSTEMS</b>			
<p><b>Impact 5.15-1:</b> Implementation of the Specific Plan would not require or result in the relocation or construction of new or expanded wastewater facilities the construction or relocation of which could cause significant environmental effects. [Threshold U-1 (part)]</p>	Less than significant	No mitigation measures are required.	Less than significant
<p><b>Impact 5.15-2:</b> Project-generated wastewater could be adequately treated by the wastewater service provider for the project.</p>	Less than significant	No mitigation measures are required.	Less than significant

## 1. Executive Summary

**Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<b>Impact 5.15-3:</b> Buildout of the Specific Plan would not require or result in the relocation or construction of new or expanded water facilities the construction or relocation of which could cause significant environmental effects.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.15-4:</b> Available water supplies are sufficient to serve buildout of the Specific Plan and reasonably foreseeable future development during normal, dry, and multiple dry years.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.16-5:</b> Development accommodated by the Specific Plan would not require or result in the relocation or construction of new or expanded stormwater facilities the construction or relocation of which could cause significant environmental effects.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.16-6:</b> Solid waste generated by development accommodated by the Specific Plan would not be 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.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.16-7:</b> Project-generated solid waste would comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	Less than significant	No mitigation measures are required.	Less than significant
<b>Impact 5.15-8:</b> Existing facilities would be able to accommodate project-generated electricity and gas demands and would not require the relocation or construction of new or expanded electricity, natural gas or telecommunication facilities.	Less than significant	No mitigation measures are required.	Less than significant

## 1. Executive Summary

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## 2. Introduction

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### 2.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The California Environmental Quality Act (CEQA) requires that all state and local governmental agencies consider the environmental consequences of projects over which they have discretionary authority before taking action on those projects. This draft environmental impact report (DEIR) has been prepared to satisfy CEQA and the CEQA Guidelines. The environmental impact report (EIR) is the public document designed to provide decision makers and the public with an analysis of the environmental effects of the proposed project, to indicate possible ways to reduce or avoid environmental damage and to identify alternatives to the project. The EIR must also disclose significant environmental impacts that cannot be avoided; growth inducing impacts; effects not found to be significant; and significant cumulative impacts of all past, present, and reasonably foreseeable future projects.

The lead agency means “the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment” (CEQA § 21067). The City of Irwindale has the principal responsibility for approval of the Irwindale Gateway Specific Plan. For this reason, the City of Irwindale is the CEQA lead agency for this project.

The intent of the DEIR is to provide sufficient information on the potential environmental impacts of the proposed Irwindale Gateway Specific Plan to allow the City of Irwindale to make an informed decision regarding approval of the project. Specific discretionary actions to be reviewed by the City are described in Section 3.4, *Intended Uses of the EIR*.

This DEIR has been prepared in accordance with requirements of the:

- California Environmental Quality Act (CEQA) of 1970, as amended (Public Resources Code, §§ 21000 et seq.)
- State Guidelines for the Implementation of the CEQA of 1970 (CEQA Guidelines), as amended (California Code of Regulations, §§ 15000 et seq.)

The overall purpose of this DEIR is to inform the lead agency, responsible agencies, decision makers, and the general public about the environmental effects of the development and operation of the proposed Irwindale Gateway Specific Plan. This DEIR addresses effects that may be significant and adverse; evaluates alternatives to the project; and identifies mitigation measures to reduce or avoid adverse effects.

## 2. Introduction

### 2.2 NOTICE OF PREPARATION

The City determined that an EIR would be required for this project and issued a Notice of Preparation (NOP) on February 10, 2023 (see Appendix A). A scoping meeting was held on March 2, 2023, to elicit comments on the scope of the DEIR. Table 2-1 summarizes the comments received during the scoping meeting and identifies the section(s) of this DEIR where the issues are addressed.

**Table 2-1 Scoping Meeting Comments Summary**

Commenter	Summary of Comments	Issue Addressed In:
<b>Written Comments</b>		
Fred Barbosa	<ul style="list-style-type: none"> <li>States that the site has never passed final compaction inspection. Asks if the site will be remediated.</li> <li>Asks for the number of bays for trucks.</li> <li>Opposes potential air pollution generated from the proposed project.</li> <li>Opposes warehouse use of the proposed project. Cites the need for more commercial uses.</li> </ul>	<ul style="list-style-type: none"> <li>Chapter 3, <i>Project Description</i></li> <li>Section 5.2, <i>Air Quality</i></li> <li>Chapter 7, <i>Alternatives to the Proposed Project</i> (see Existing General Plan for consideration of commercial uses),</li> </ul>
Ralph Velador, LIUNA	<ul style="list-style-type: none"> <li>States that LIUNA is interested in this project and has members with relevant experience.</li> </ul>	N/A
<b>Oral Comments</b>		
Fred Barbosa	<ul style="list-style-type: none"> <li>Asks if the project site will be remediated to the bottom of the pit.</li> <li>Raises concern with potential air pollution.</li> <li>Raises concern with potential truck traffic.</li> </ul>	<ul style="list-style-type: none"> <li>Chapter 3, <i>Project Description</i></li> <li>Section 5.2, <i>Air Quality</i></li> <li>Section 5.13, <i>Transportation</i></li> </ul>
Robert Diaz	<ul style="list-style-type: none"> <li>Questions the purpose of a specific plan and the advantage of a zone change.</li> <li>Asserts that an economic impact analysis should be included in the EIR.*</li> <li>Requests for traffic cumulative impacts to be evaluated in the EIR.</li> <li>States that the traffic impact analysis should include the number and types of vehicles involved in the proposed project.</li> <li>States that the EIR should analyze cumulative impacts from trucks based on human health instead of climate impacts as regulated by AQMD.</li> <li>Asks that the EIR consider all possible uses of the proposed project.</li> <li>Questions why commercial uses are not considered.</li> <li>Raises concern with impacts to truck traffic from the dedication of Live Oak Lane.</li> <li>Notes existing traffic along Arrow Highway eastbound.</li> <li>Proposes that the I-605 north on-ramp be extended through the project site to Arrow Highway to alleviate existing traffic.</li> </ul>	<ul style="list-style-type: none"> <li>Section 5.2, <i>Air Quality</i></li> <li>Section 5.13, <i>Transportation</i></li> <li>Chapter 7, <i>Alternatives</i></li> </ul> <p><i>* Note that pursuant to CEQA (Guidelines Section 15131), economic impacts are not considered environmental impacts of a project. An economic analysis for this project has not been prepared in conjunction with the EIR.</i></p>

2. Introduction

**Table 2-1 Scoping Meeting Comments Summary**

Commenter	Summary of Comments	Issue Addressed In:
Mike Mohajer	<ul style="list-style-type: none"> <li>• Raises concerns with utility impacts.</li> <li>• Asks if there will be monitoring wells due to the former gravel operation.</li> <li>• States that the EIR needs to provide more information on the BESS. Notes that BESS are subject to fires and explosions. Cites City of Vernon as an example. Requests that the scope of environmental review be expanded to include fire and explosion impacts.</li> <li>• Requests environmental justice impacts to be included in the EIR.*</li> <li>• Asks if there will be a chance for the public to review the EIR.**</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter 3, <i>Project Description</i></li> <li>• Chapter 5.2, <i>Air Quality</i></li> <li>• Section 5.5, <i>Geology and Soils</i></li> <li>• Section 5.7, <i>Hazards and Hazardous Materials</i></li> <li>• Section 5.15, <i>Utilities and Service Systems</i></li> <li>• <i>*Environmental Justice is not a specific topic required to be addressed in an EIR. The potential impacts that combine to result in environmental justice impacts, however, are addressed in the respective sections of this EIR, including air quality (including health risk), hazards, noise, public services, and transportation. See also, Health Risk Assessment, DEIR Appendix D2</i></li> <li>• <i>** This Draft EIR will be distributed for a 45-day public review. This review will be publicly noticed, and individual notices will be forwarded to public scoping attendees and NOP respondents (who have provided address information).</i></li> </ul>

Comments are organized in order of testimony.

In addition to the scoping meeting, the public was provided with a 30-day public review period to comment on the NOP—from February 10, 2023, to March 11, 2023. Because the scoping meeting was held relatively close to the end date of the comment period, the local comment period was extended to March 18, 2023, to give local individuals and organizations one additional week to submit comments. Table 2-2 compiles the comments received from commenting agencies/persons during the NOP process and identifies the section(s) of this DEIR where the issues are addressed. All NOP comments received during the public review period are in Appendix A2.

## 2. Introduction

**Table 2-2 NOP Written Comments Summary**

Commenting Agency/Person	Letter Dated	Summary of Comments	Issue Addressed In:
<b>Agencies</b>			
City of Covina  Danielle Andrade Management Analyst	2/14/2023	<ul style="list-style-type: none"> <li>States that the Planning Department has no comments.</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
Native American Heritage Commission (NAHC)  Andrew Green Cultural Resources Analyst	2/14/2023	<ul style="list-style-type: none"> <li>Cites CEQA, AB 52, and SB 18 regulations.</li> <li>Provides recommendations for cultural resources assessments.</li> </ul>	<ul style="list-style-type: none"> <li>Section 5.14, <i>Tribal Cultural Resources</i></li> </ul>
California Department of Justice  Christie Vosburg Supervising Deputy Attorney General	2/23/2023	<ul style="list-style-type: none"> <li>States potential environmental impacts of warehouse projects on surrounding communities related to air quality and health, noise, and traffic. States that there may be other impacts depending on the project.</li> <li>Encourages that the DEIR consider information from a document containing best practices and mitigation measures for warehouse projects published by the Attorney General Office's Bureau of Environmental Justice.</li> <li>Encourages consideration of measures to reduce project emissions.</li> </ul>	<ul style="list-style-type: none"> <li>Section 5.2, <i>Air Quality</i></li> <li>Section 5.6, <i>Greenhouse Emissions</i></li> <li>Section 5.11, <i>Noise</i></li> <li>Section 5.13, <i>Transportation</i></li> <li>See also, <i>Health Risk Assessment, DEIR Appendix D2</i></li> </ul>
California Department of Resources Recycling and Recovery (CalRecycle)  Benjamin Escotto Senior Environmental Scientist	2/28/2023	<ul style="list-style-type: none"> <li>Notes the existing Inert Debris Engineered Fill Operation (IDEFO) on-site. Details required remediation and logistics procedures upon closure of the IDEFO.</li> <li>Requests copies of any subsequent environmental documents, copies of public notices, and any NODs for the proposed project.</li> </ul>	<ul style="list-style-type: none"> <li>Chapter 3, <i>Project Description</i></li> <li>Section 5.7, <i>Hazards and Hazardous Materials</i></li> </ul>
California Department of Fish and Wildlife (CDFW)  Erinn Wilson-Olgin Environmental Program Manager I	3/8/2023	<ul style="list-style-type: none"> <li>States that the EIR should adequately discuss impacts on biological resources.</li> <li>States that the EIR should address the project impacts on the San Gabriel Canyon Significant Ecological Area (SEA) due to the project's proximity to the SEA.</li> <li>Details how the EIR should discuss project impacts on the southwestern willow flycatcher, reptiles designated as species of special concern, and nesting birds.</li> <li>Provides recommendations regarding landscaping and use of rodenticides.</li> <li>Provides general comments on biological baseline assessments, California Endangered Species Act (CESA), scientific collecting permit, translocation/salvage of plants and animal species, lake and streambed alteration program, disclosure, mitigation measures, data, biological impacts, compensatory mitigation, and long-term management of mitigation lands.</li> </ul>	<ul style="list-style-type: none"> <li>Chapter 8, <i>Impacts Found Not to Be Significant</i></li> </ul>

2. Introduction

**Table 2-2 NOP Written Comments Summary**

Commenting Agency/Person	Letter Dated	Summary of Comments	Issue Addressed In:
South Coast Air Quality Management District (SCAQMD)  Sam Wang Program Supervisor, CEQA IGR	3/17/2023	<ul style="list-style-type: none"> <li>• Requests that they be sent a copy of the EIR and documents related to air quality, health risk, and greenhouse gas analyses. *</li> <li>• Provides recommendations for the project’s air quality analysis.</li> <li>• Provides recommendations to consider in mitigation measures for air quality impacts in the EIR.</li> </ul>	<ul style="list-style-type: none"> <li>• Section 5.2, <i>Air Quality</i></li> <li>• Section 5.6, <i>Greenhouse Gases</i></li> <li>• *A <i>DEIR Notice of Availability with links to the requested documents will be forward to this commenter.</i></li> </ul>
Southern California Association of Governments (SCAG)  Frank Wen Manager	3/17/2023	<ul style="list-style-type: none"> <li>• Recommends using side-by-side comparison of SCAG Connect SoCal goals with discussions of consistency of goals and accompanying analysis. Recommends resources for strategies.</li> <li>• Describes SCAG demographics and growth forecast background and resources. Suggests informed and intentional local action to achieve a sustained regional outcome.</li> <li>• Recommends SCAG resources for mitigation measures.</li> </ul>	<ul style="list-style-type: none"> <li>• Section 5.9, <i>Land Use and Planning</i></li> <li>• Chapter 8, <i>Impacts Found Not be Significant</i></li> <li>• Section 5.13, <i>Transportation</i></li> </ul>
<b>Individuals</b>			
Mitchell M. Tsai	2/21/2023	<ul style="list-style-type: none"> <li>• Requests that project documents and notice of actions and hearings be sent to them.*</li> </ul>	<ul style="list-style-type: none"> <li>• * <i>This Draft EIR will be distributed for a 45-day public review. This review will be publicly noticed and individual notices will be forwarded to public scoping attendees and NOP respondents (who have provided address information). Public hearings will be noticed per the City’s protocol, including noticing on the City’s website.</i></li> </ul>
Mike Mohajer	3/5/2023	<ul style="list-style-type: none"> <li>• Asserts that the project proponent should verify and substantiate that no organic and/or hazardous wastes were disposed at the project site prior to its classification as an inert waste landfill. States that this can be verified by drilling borings, and that if organic solid waste is detected that all proposed structures be protected against landfill gas migration. States that the DEIR should address this issue and identify potential mitigation measures.</li> <li>• States that the DEIR should provide more details on the BESS. States that lithium-ion battery fires and explosions have been increasing in the past few years. Asserts that the DEIR should address mitigation measures for potential fires and explosions in conjunction with the California</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter 3, <i>Project Description</i></li> <li>• Chapter 5.2, <i>Air Quality</i></li> <li>• Section 5.5, <i>Geology and Soils</i></li> <li>• Section 5.7, <i>Hazards and Hazardous Materials</i></li> <li>• Section 5.15, <i>Utilities and Service Systems</i></li> </ul>

## 2. Introduction

**Table 2-2 NOP Written Comments Summary**

Commenting Agency/Person	Letter Dated	Summary of Comments	Issue Addressed In:
		Department of Toxic Substances Control and the Los Angeles County Fire Department. <ul style="list-style-type: none"> <li>States that the DEIR should address impacts related to solid waste, fire and explosion potentially caused by lithium-ion batteries, land disposal, and environmental justice.</li> </ul>	
Robert Diaz	3/13/2023	<ul style="list-style-type: none"> <li>Suggests that the proposed project block Live Oak Lane access to or from Arrow Highway in order to prevent traffic along Meridian Street and impact residents.</li> </ul>	<ul style="list-style-type: none"> <li>Section 5.13, <i>Transportation</i></li> </ul>

All comments are organized based on date received.

The NOP process helps determine the scope of the environmental issues to be addressed in the DEIR. Based on the scoping process for this project, certain environmental categories were identified as having the potential to result in significant impacts. Issues considered Potentially Significant are addressed in this DEIR, but issues identified as Less Than Significant or No Impact are not.

### 2.3 SCOPE OF THIS DEIR

The scope of the DEIR was determined based on the City’s preliminary analysis of the project that an EIR is required (as noted in the NOP), comments received in response to the NOP, and comments received at the scoping meeting conducted by the City. Pursuant to Sections 15126.2 and 15126.4 of the CEQA Guidelines, the DEIR should identify any potentially significant adverse impacts and recommend mitigation that would reduce or eliminate these impacts to levels of insignificance.

#### 2.3.1 Impacts Considered Less Than Significant

As detailed in Chapter 8, *Impacts Found Not to Be Significant*, the City determined that five environmental impact categories were not significantly affected by or did not affect the proposed project.

- Agriculture and Forestry Resources
- Biological Resources
- Population and Housing
- Recreation
- Wildfire

#### 2.3.2 Potentially Significant Adverse Impacts

Based on project scoping, the City determined that implementation of the proposed project could potentially result in significant impacts to 15 environmental factors.

## 2. Introduction

- Aesthetics
- Air Quality
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Public Services
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems

### 2.3.3 Unavoidable Significant Adverse Impacts

This DEIR identifies two environmental topical areas with significant and unavoidable adverse impacts, as defined by CEQA, that would result from implementation of the proposed project. Unavoidable adverse impacts may be considered significant on a project-specific basis, cumulatively significant, and/or potentially significant. The City must prepare a “statement of overriding considerations” before it can approve the project, attesting that the decision-making body has balanced the benefits of the proposed project against its unavoidable significant environmental effects and has determined that the benefits outweigh the adverse effects, and therefore the adverse effects are considered acceptable. The impacts that were found in the DEIR to be significant and unavoidable are:

- Air Quality (Operations and Construction for both Option 1 and Option 2 project scenarios)
- Greenhouse Gas Emissions (both Option 1 and Option 2 project scenarios)

## 2.4 INCORPORATION BY REFERENCE

The following documents are incorporated by reference into this DEIR, consistent with Section 15150 of the CEQA Guidelines. These documents are available for review at the City of Irwindale Community Development Department – Planning Division, Second Floor, 16102 Arrow Highway, Irwindale, CA, 91706, and on the City’s website. The general plan and municipal code are at:

- <https://www.irwindaleca.gov/DocumentCenter/View/38/General-Plan?bidId=>  
[https://library.municode.com/ca/irwindale/codes/code\\_of\\_ordinances](https://library.municode.com/ca/irwindale/codes/code_of_ordinances).
- **The Irwindale General Plan** serves as the major blueprint for directing growth in Irwindale and regulates the existing land uses on the proposed project site. The General Plan analyzes existing conditions in the

## 2. Introduction

City, including physical, social, cultural, and environmental resources and opportunities. The General Plan also looks at trends, issues, and concerns that affect the region, includes City goals and objectives, and provides policies to guide development and change.

- **Irwindale Municipal Code.** The Irwindale Municipal Code is a set of laws governing the City and covers all aspects of City regulations, including zoning, permitted uses and standards, and various development requirements. Zoning district standards are also included in the code. Where applicable, code sections are referenced throughout the DEIR.

In each instance where a document is incorporated by reference for purposes of this report, the DEIR shall briefly summarize the incorporated document or briefly summarize the incorporated data if the document cannot be summarized. Each section provides a complete list of references used in preparing this DEIR.

### 2.5 FINAL EIR CERTIFICATION

This DEIR is being circulated for public review for 45 days. Interested agencies and members of the public are invited to provide written comments on the DEIR to the City address shown on the title page of this document. Upon completion of the 45-day review period, the City will review all written comments received and prepare written responses for each. A Final EIR (FEIR) will incorporate the received comments, responses to the comments, and any changes to the DEIR that result from comments. The FEIR will be presented to the Irwindale City Council for potential certification as the environmental document for the project. All persons who comment on the DEIR will be notified of the availability of the FEIR and the date of the public hearings before the Planning Commission and City Council.

The DEIR is available to the general public for review at various locations:

- Irwindale City Hall: 5050 Irwindale Avenue, Irwindale, CA 91760
- Irwindale Public Library: 16053 Calle de Paseo, Irwindale, CA 91706
- Irwindale Community Development Department, Planning Division: 16102 Arrow Highway, Irwindale, CA 91706

### 2.6 MITIGATION MONITORING

Public Resources Code Section 21081.6 requires that agencies adopt a monitoring or reporting program for any project for which it has made findings pursuant to Public Resources Code Section 21081 or adopted a Negative Declaration pursuant to 21080(c). Such a program is intended to ensure the implementation of all mitigation measures adopted through the preparation of an EIR or Negative Declaration.

The Mitigation Monitoring Program for the proposed project will be completed prior to consideration of the project by the Irwindale City Council.

## 3. Project Description

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### 3.1 PROJECT LOCATION

The City of Irwindale is in eastern Los Angeles County in southern California. Irwindale is bordered by the census-designated place of Mayflower Village to the west; the city of Azusa and the census-designated place of Vincent to the east; the cities of El Monte, West Covina, and Baldwin Park to the south; and the city of Duarte to the north (see Figure 3-1, *Regional Location*).

The 66.64-acre Irwindale Gateway Specific Plan (Specific Plan) area is at 13620 Live Oak Lane in the central portion of Irwindale. It is adjacent and to the east of Interstate 605 (I-605), approximately 1.5 miles south of I-210, and 2.7 miles north of I-10. The project site encompasses a former sand and gravel quarry, the NuWay Live Oak Inert Landfill (NuWay Landfill), and a former street-cleaning business. The site is bounded by I-605 to the west, Live Oak Lane to the north and east, and Live Oak Avenue to the south (see Figure 3-2, *Local Vicinity*, and Figure 3-3, *Aerial Photograph*). Arrow Highway also abuts part of the northern project site boundary. The project site consists of Assessor Parcel Numbers (APNs) 8532-002-046 and 8532-002-047. A 9.61-acre easement owned by Southern California Edison along the west side of the project site is inside the project boundary. The site also includes 4.38 acres of right-of-way dedications. The site does not include the industrial uses (APNs 8532-002-036, 8532-002-040, and 8532-002-043) that are between the northeast part of the project site and Live Oak Lane, nor does the site boundary include the parcel owned by the Valley County Water District (APN 8532-002-904) at the southeastern corner of the project site.

### 3.2 STATEMENT OF OBJECTIVES

Objectives for the Irwindale Gateway Specific Plan will aid decision makers in their review of the project and associated environmental impacts:

1. Create a comprehensive master plan for the re-use of a reclaimed sand and gravel quarry, including the development of a utility-scale battery energy storage system.
2. Provide state-of-the-art buildings that can accommodate various industrial and manufacturing uses, including warehouse distribution, logistics, and fulfillment centers with proximate access to Interstate 605 on- and off-ramps.
3. Ensure that infrastructure plans for water, sewer, and drainage are adequately designed for the Specific Plan.
4. Provide a circulation system that meets transportation requirements and minimizes potential adverse impacts on the surrounding area.

### 3. Project Description

5. Provide guidelines and standards for architecture, landscaping, walls, fencing, lighting, and entry treatments that are compatible with the design and architecture of the surrounding uses.

### 3.3 PROJECT CHARACTERISTICS

“Project,” as defined by the CEQA Guidelines, means:

... the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following: (1)...enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100–65700. (14 Cal. Code of Reg. § 15378[a])

#### 3.3.1 Description of the Project

Following is a discussion of the project background for context, detailed descriptions of the proposed project’s two potential site plans—three industrial buildings (Option 1) and two industrial buildings with a Battery Energy Storage System (BESS) (Option 2)—and other various development components and improvements. The end use for the project site after reclaiming the property would be one of these two options. Project phasing is discussed in Section 3.3.2, *Project Phasing and Construction*. A complete copy of the Irwindale Gateway Specific Plan is in the technical appendices to this Draft EIR (Appendix B).

##### 3.3.1.1 PROJECT BACKGROUND

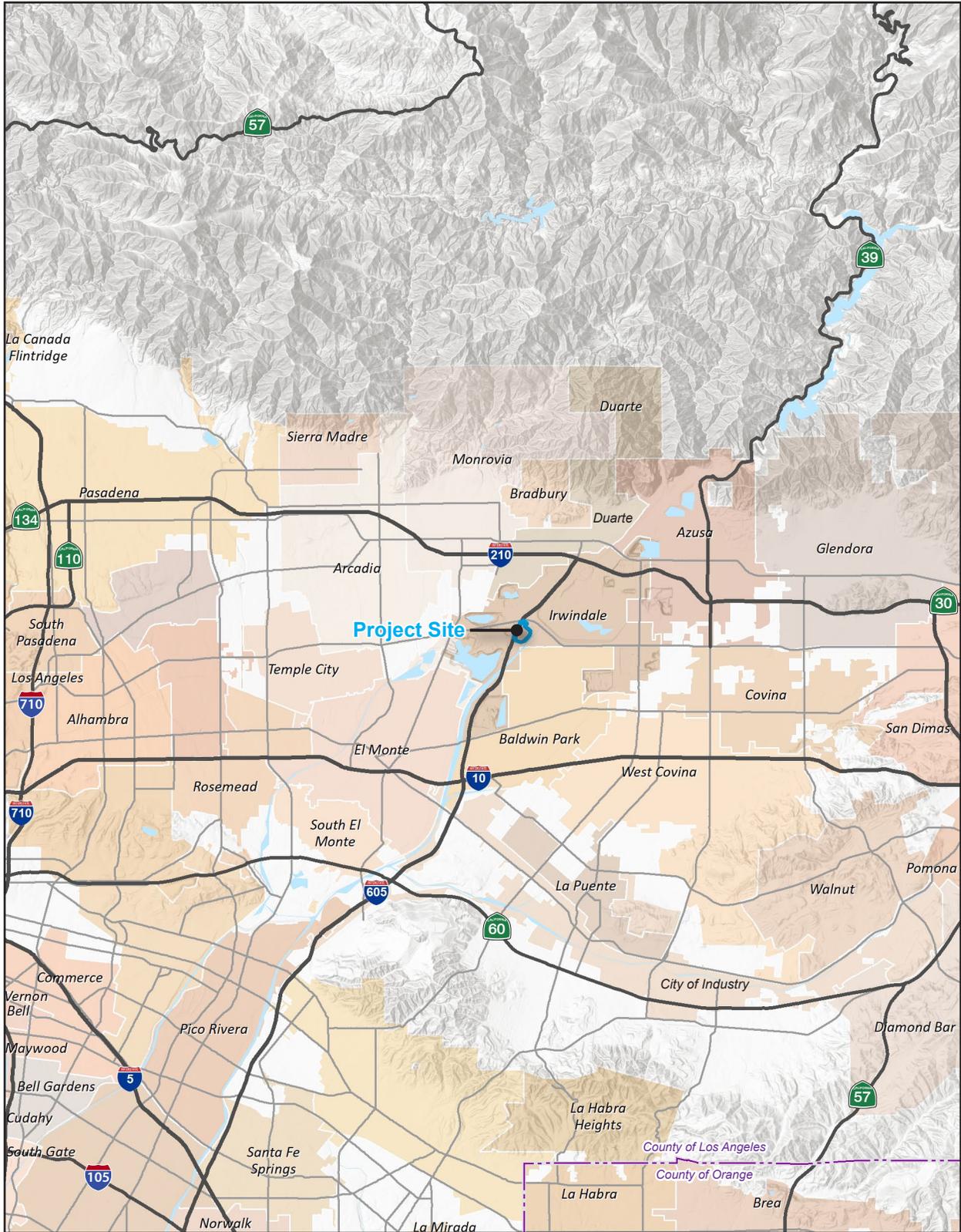
###### History of Landfill Parcel

The following describes past uses and discretionary approvals for APNs 8532-002-046 and 8532-002-047 (see Figure 3-4, *Existing Parcel Map*).

- **1894 to 1941.** Project site consisted of vacant and/or undeveloped land.
- **1957.** Sand and gravel quarry is constructed and begins operation.
- **1964.** Gravel pits developed on the eastern and western portions of the project site, with a retention pond on the northern boundary of the project site.
- **1973.** Quarry ceases operation.
- **1973 to 1986.** Project site remains a vacant pit, collecting groundwater and rainwater and creating an urban lake.
- **1985.** Applicant obtains liquid-waste permits from the Los Angeles Regional Water Quality Control Board to fill the pit with mining silt from an adjacent rock quarry.
- **1988.** EIR (SCH #1988060819) for the Nu-Way Live Oak Inert Landfill is approved.

3. Project Description

Figure 3-1 - Regional Location



--- County Boundary

Note: Unincorporated county areas are shown in white.

Source: Generated using ArcMap, Inc., 2023.

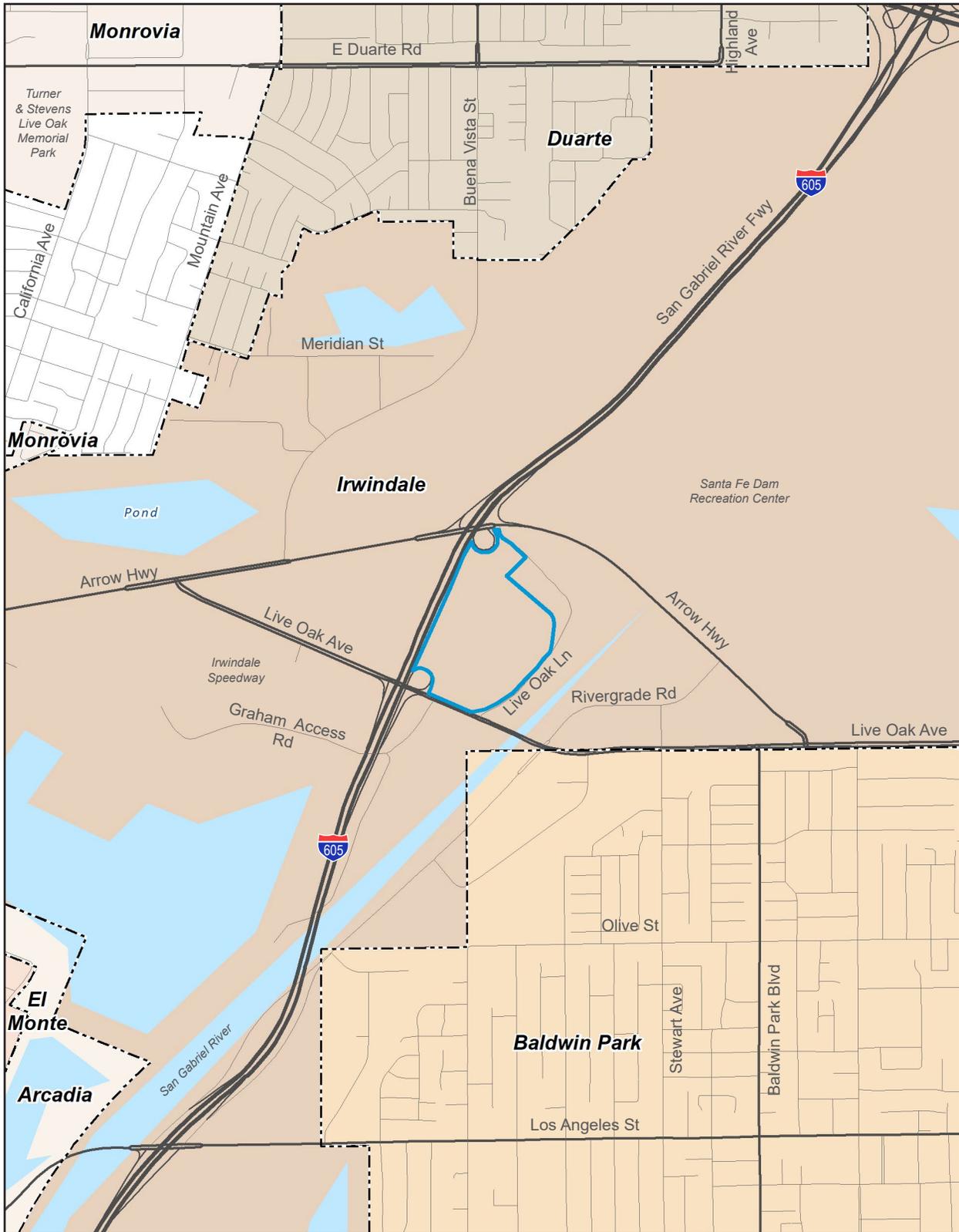


### 3. Project Description

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3. Project Description

Figure 3-2 - Local Vicinity



Project Site Boundary      City Boundary

0      2,000  
Scale (Feet)



Note: Unincorporated county areas are shown in white.

Source: Generated using ArcMap, Inc., 2023.

### 3. Project Description

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3. Project Description

Figure 3-3 - Aerial Photograph



— Project Site Boundary  
- - - City Boundary

0 800  
Scale (Feet)



Source: Nearmap, Inc., 2023.

### 3. Project Description

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3. Project Description

Figure 3-4 - Existing Parcel Map



— Project Site Boundary    - - - Parcel Lines  
- - - City Boundary

0                      375  
Scale (Feet)



Source: Nearmap, Inc., 2023.

### 3. Project Description

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### 3. Project Description

- **1990.** Waste discharge permit is amended to allow landfilling of inert waste.
- **Circa 1990 through 2005.** Silt slurry delivered through a piping system was placed in the quarry, followed by landfill operations.
- **1993.** Supplemental EIR for the Nu-Way Live Oak Inert Landfill is approved.
- **1994.** EIR (SCH #1988060819) and CUP No. 96-20 are certified and approved, respectively, for the establishment and operation of the Nu-Way Live Oak Inert Landfill.
- **1996.** CUP allowing the Nu-Way Live Oak Inert Landfill to be filled to surrounding street grade level is approved; Nu-Way Live Oak Inert Landfill becomes permitted for operation.
- **2005.** Mitigated Negative Declaration for early closure of the Nu-Way Live Oak Inert Landfill is approved.
- **2011 to present.** Negative Declaration and CUP are approved, permitting the importing, exporting, stockpiling, and crushing of broken concrete and asphalt concrete as crushed miscellaneous base for construction projects.

#### History of Northern Parcel

The following describe past uses of APN 8532-002-046 and 8532-002-047 (see Figure 3-4).

- **1957.** Permits issued for an asphalt plan, dust silo, shed for hot oil heater, and associated office structures.
- **1964.** Developed as a retention pond for the adjacent quarry operations.
- **1967.** Developed as a retention pond. Permits issued for the adjacent quarry operations, a hot plant, scale house, and scale pit.
- **1979.** Becomes apparent that the project site is used for material and vehicle storage.
- **1983.** Building for a street-sweeping business is constructed.
- **1990.** Two underground storage tanks are removed under the supervision of the Los Angeles County Fire Department and properly disposed; analyzed soil samples detect petroleum hydrocarbons.
- **1991.** Impacted soils are excavated; leaking underground storage tank case is closed by the Los Angeles Department of Public Works.
- **2006 to 2022.** Business Licensure for street sweeping business.
- **2022 to Present.** Project site is vacant.

### 3. Project Description

#### **Nu-Way Live Oak Reclamation Operations Plan**

The Nu-Way Live Oak Reclamation Operations Plan addresses the existing fill. Site reclamation will cover approximately 80 percent of the project site, as shown on Figure 3-5, *Rough Grading Plan and Remedial Grading Over-Excavation*. The Operations Plan for site reclamation has been approved by the Regional Water Quality Control Board (see letter dated September 14, 2022, Appendix C). The rough grading plan was approved by the County of Los Angeles Department of Public Works (9/16/22), and the City of Irwindale has issued a grading permit for this work (10/27/22). Both these approvals are included in Appendix C. The Operations Plan is currently underway and will be completed prior to implementation of the Specific Plan. The rough graded site per the Operations Plan serves as the baseline conditions for implementation of the Specific Plan. This phase is not a part of the proposed project and is not analyzed in this Draft EIR.

The Operations Plan addresses all requirements related to on-site excavation, processing, and recompaction of existing fill. The Operations Plan includes measures to address site setup, materials processing, equipment, salvaging, hazardous waste, worker safety and training, and fugitive dust generated from reclamation operations as well as noise, odor, litter, rodents and insects, fires, sanitary facilities, and accidental spills.

As part of the Operations Plan, temporary movable structures (e.g., portable toilets, sunshades, office trailer) will be installed throughout the project site as appropriate. Reclamation operations will include excavation of existing fill in workable areas down to predetermined depths and inspection for noncompliant materials such as hazardous wastes, organics, and asbestos. Noncompliant materials will be segregated and removed. Concurrently, excavated material will be processed as necessary to create fill-specification-compliant material. Compaction monitoring and testing will be conducted with settlement monitors placed at selected locations; areas that do not pass the compactions standards will be excavated and replaced. All reclamation operations will be overseen by a California Professional Geotechnical Engineer or equivalent, as determined by the Director of Engineering.

Final elevation of the project site is estimated to match that of the adjacent grade.

#### **3.3.1.2 DEVELOPMENT PLAN**

This section describes the details of the proposed land use for each of the project scenarios and describes the supporting circulation/access, infrastructure, and landscaping components of the proposed Specific Plan. Unless otherwise noted, the components of each of these plans apply to both Option 1 and Option 2 development scenarios.



### 3. Project Description

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### 3. Project Description

#### Land Use

This section describes the alternate land uses and conceptual plans for the two development options defined for the Irwindale Gateway Specific Plan. A land use comparison is shown in Table 3-1, *Proposed Land Use, Option 1 and Option 2*. The Conceptual Land Use Plans for Option 1 and Option 2 are depicted on Figures 3-6a, *Conceptual Land Use Plan No. 1*, and 3-6b, *Conceptual Land Use Plan No. 2*, respectively.

**Table 3-1 Proposed Land Use, Option 1 and Option 2**

Development Option	Land Use	Acres	Permitted Building/Structure Use	Square Feet/Other Details
Option 1	Industrial/Business Park	52.65 ac	General light industrial, manufacturing, warehouse/distribution, e-commerce fulfillment center	<ul style="list-style-type: none"> <li>• Up to 1,000,000 sf of building space</li> <li>• Conceptual plan: 954,796 sf of warehouse space and 43,000 sf of office space</li> </ul>
Option 2	Industrial/Business Park	36.71 ac	General light industrial, manufacturing, warehouse/distribution, e-commerce fulfillment center	<ul style="list-style-type: none"> <li>• Up to 705,000 sf of building space</li> <li>• Conceptual plan: 668,070 sf of warehouse space and 36,000 sf of office space</li> </ul>
	Battery Energy Storage System (BESS)	15.94 ac	Electric energy storage, transmission, and AC/DC and voltage conversion	<ul style="list-style-type: none"> <li>• Battery/Inverter/medium voltage transformer array area: Appx. 353,000 sf</li> <li>• Roads and parking: Appx. 91,000 sf</li> <li>• Collector Substation: Appx. 87,000 sf</li> <li>• Aux. Transformer Pads: Appx. 2,000 sf</li> </ul>

#### Option 1

The Specific Plan area encompasses approximately 66.64 acres. As shown on Figure 3-6a, a 52.65-acre parcel would be created and designated Industrial/Business Park with the remaining 13.99 acres being used for public rights-of-way and an SCE easement that runs from north to south along the western portion of the site. The conceptual development plan for Option 1 is shown on Figure 3-7, *Option 1 Site Plan*.

The Industrial/Business Park would accommodate industrial, storage, and warehousing uses in large buildings. Industrial or business park buildings are envisioned to be over 50,000 square feet to house users such as general light industrial, manufacturing, warehouse and distribution, and e-commerce fulfillment centers. Some of these users require buildings that can exceed 600,000 square feet.

The conceptual plan for the 52.65 acres designated Industrial/Business Park under Option 1 includes an industrial logistics and distribution center with three buildings and associated parking and loading docks. The three buildings would allow a maximum of 997,796 square feet of building space—954,796 square feet of warehouse space and 43,000 square feet of office space (see Table 3-2, *Building Square Footage, Option 1*). Trailer, truck, and/or car parking would be included throughout the project site.

### 3. Project Description

**Table 3-2 Building Square Footage, Option 1**

Buildings	Building Square Feet		
	Warehouse	Office	Total
Building 1	222,910	10,000	232,910
Building 2	660,776	30,000	690,776
Building 3	71,110	3,000	74,110
<b>Total</b>	<b>954,796</b>	<b>43,000</b>	<b>997,796</b>

#### Option 2

Under Option 2, the land use plan would include a 36.71-acre Industrial/Business Park parcel and a 15.94-acre parcel for the BESS (see Figure 3-6b and Figure 3-8, *Option 2 Site Plan*). Option 2 would also permit industrial or business park buildings over 50,000 square feet to house general light industrial, manufacturing, warehouse and distribution, and e-commerce fulfillment uses. Some of these uses require large buildings that can exceed 600,000 square feet.

Option 2 would consist of two industrial buildings and a 400-megawatt BESS. The two buildings would allow a maximum of 704,070 square feet—668,070 square feet of warehouse space and 36,000 square feet of office space (see Table 3-3, *Building Square Footage, Option 2*). The BESS would encompass approximately 16 acres on the southern portion of the project site. The preliminary design for the BESS includes approximately 353,000 square feet of the site encompassing battery arrays, within which battery enclosures, inverter enclosures, and medium voltage transformers would be arranged. The specific equipment models to be used would be determined prior to final design. The enclosures and medium voltage transformers are typically less than 10 feet in height. The battery and inverter enclosures would be constructed of metal and purpose-built. Inverters would be bi-directional, accommodating both charging from the grid and delivering energy back to the grid. The battery enclosures house lithium-ion batteries, fire prevention and detection systems, monitoring and control systems, and cooling units. Battery and inverter containers could be double stacked for more storage capacity. Other equipment would include gas detection equipment, electrical switching equipment, auxiliary power panels, computer and telecommunications equipment, and switchgear. The medium voltage transformers would be connected to an onsite collector substation via underground conductor cables. The collector substation would encompass approximately two acres. Roads designed in accordance with fire department standards would provide access throughout the BESS area. The BESS facility would also include security lighting and signage and a perimeter wall or fence. The final configuration of the BESS, including but not limited to equipment models, battery enclosure dimensions, number of containers, number of inverters, and ancillary equipment, would be determined in building permit plans.

### 3. Project Description

**Table 3-3 Building Square Footage, Option 2**

Buildings	Building Square Feet		
	Warehouse	Office	Total
Building 1	599,960	30,000	626,960
Building 2	71,110	6,000	77,110
<b>Total</b>	<b>668,070</b>	<b>36,000</b>	<b>704,070</b>

#### *Electric Tie-Line*

The overhead electric tie-line would consist of three 220 kilovolt (kV) conductor cables below an optical ground wire that serves dual purposes of grounding and fiber optic communications. The conductors and optical ground wire would be supported by steel poles that would be designed high enough to provide minimum required clearances from existing overhead power lines. Some of the poles could be up to 150 feet high where existing overhead power lines are crossed to accommodate minimum needed vertical clearances. The conductor cables and optical ground wire would extend from the collector substation H-frame structures to a pole located inside the south end of the collector substation and then to the point of interconnection (POI) in the existing 220 kV bus works area inside of the SCE substation. Four possible electric tie-line alignment routes are proposed (see Figure 3-9, *Option 2 Electric Tie-Line Alignment Options*). For all the following routes, all poles would be in developed terrain and on private property outside of public rights-of-way. All the following routes would also be designed to provide for minimum separation distances from existing overhead transmission and distribution lines along Live Oak Avenue and on the west and east sides of the project site and the SCE substation property to meet high-voltage-electric safety-code requirements. The BESS developer is working with SCE to determine which of the following routes is most practical. Any of the following routes may need to be used pending the final design by SCE.

- **Alignment A.** From the south end of the onsite substation, the tie-line may run east inside the south boundary of the project site to a turning pole near the intersection of Live Oak Avenue and Live Oak Lane, then south or southeast across Live Oak Avenue to a turning pole inside the SCE substation property, then east to the northeast portion of the SCE substation property, and then south inside the eastern boundary of the SCE property to the POI. This alignment would require up to three poles on the project site and up to five poles inside the SCE substation property.
- **Alignment B.** From the south end of the onsite collector substation, the tie-line may cross Live Oak Avenue approximately perpendicular to a turning pole where it would turn east and run along the inside of the northern boundary of the SCE substation property to another turning pole near the northeast corner of the SCE substation property, then east and south inside the SCE property to the POI. This alignment would require one pole on the project site (i.e., at the substation), and up to six poles inside the northwest portion of the SCE substation property.
- **Alignment C.** From the south end of the onsite collector substation, the tie-line may extend directly across Live Oak Avenue to a turning pole where it would turn west to another turning pole near the intersection of Live Oak Avenue and Graham Road, then extend southward near the east side of Graham Road inside

### 3. Project Description

the SCE property to the POI. This alignment would require one pole on the project site (i.e., at the substation), and up to five poles inside the northwest portion of the SCE substation property.

- **Alignment D.** From the south end of the onsite collector substation, the tie-line may extend southwest diagonally across Live Oak Avenue to a turning pole near the intersection of Live Oak Avenue and Graham Road, then extend southward near the east side of Graham Road inside the SCE property to the POI. This alignment would require one pole on the project site (i.e., at the substation), and up to four poles inside the northwest portion of the SCE substation property.

Detailed design may determine that a portion of the tie-line would need to be installed underground. If so, the overhead line would transition to underground at a transition pole. The underground portion of the electric tie-line would consist of conduits containing electric power cables, fiber optic communications cable, and a grounding conductor within an approximately three-foot-wide and three-foot-deep high-strength concrete encasement that would be a minimum of three feet below the surface.

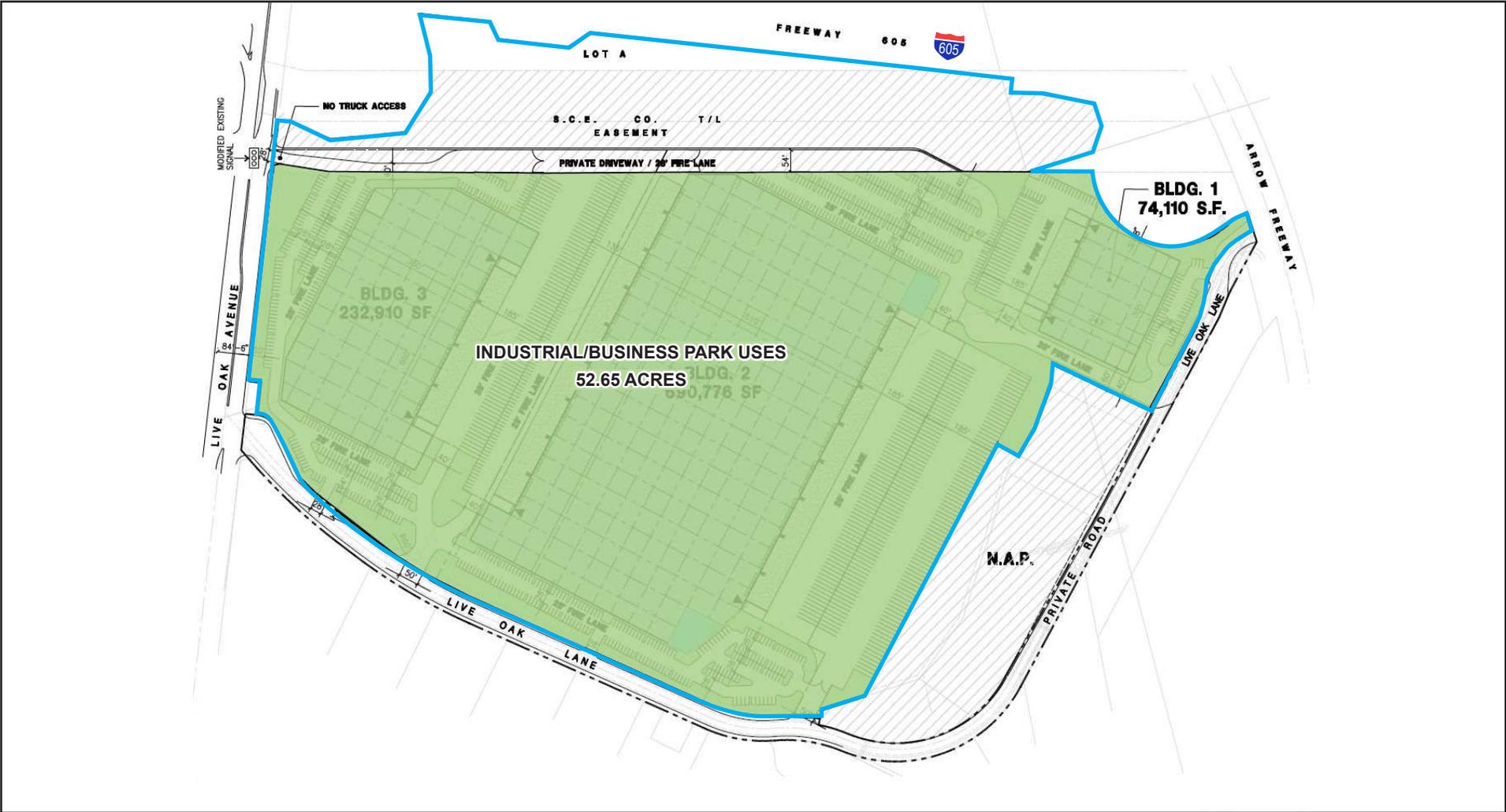
#### *Interconnection Facilities*

The interconnection facilities proposed to connect the BESS to the SCE transmission system include substation improvements and upgrades at SCE's Rio Hondo substation; a new generation tie transmission line, as described in the previous section; the previously described onsite improvements; and a new project collector substation. Equipment to be added to the Rio Hondo substation is expected to include, among other things, a 220 kV circuit breaker, three disconnect switches, an H-frame dead-end structure, 220 kV buswork, support structures, a conduit trench and conduit, and a breaker/line protection. SCE would be responsible for all construction within the SCE property. All construction work in the substation would be consistent with SCE's current use of its property and would be in areas that have been previously developed and disturbed.

The transmission facilities would include appropriate physical structures to terminate the generation tie line as well as relaying and telecommunications equipment associated with a new connection. Moreover, the BESS project collector substation would be fenced in accordance with high-voltage electric code requirements and would consist of 220 and 34.5 kV buswork, circuit breakers, disconnect switches, instrument transformers, metering transformers, two 220/34.5 kV bi-directional transformers, two auxiliary transformers for station service, a control house with relay protection, and a Supervisory Control and Data Acquisition (SCADA) and telemetry system. This system would aggregate all project information from the BESS, inverters, transformers, breakers, Fire Alarm Control Panel, and transmission lines. The SCADA system would also communicate with the transmission service provider, grid operator, and remote operations center. The SCADA system can control critical site functions, including charge/discharge, breaker status, and total project output. The high-voltage side of the collector substation would include one steel H-frame "dead end" structure, approximately 65 feet high.

3. Project Description

Figure 3-6a - Land Use Plan No. 1



Project Site Boundary



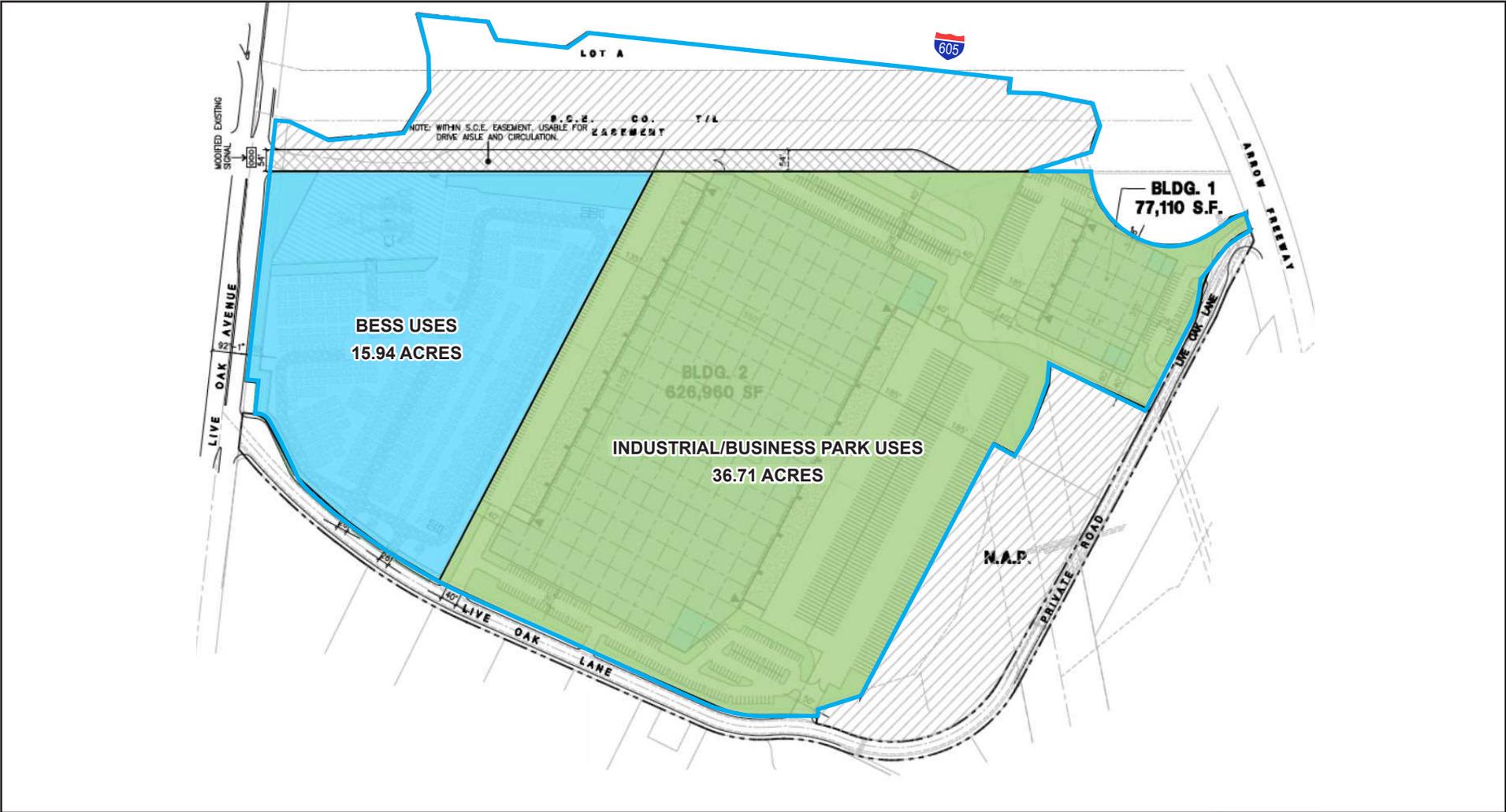
Source: KP Irwindale, LLC., 2023.

### 3. Project Description

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3. Project Description

Figure 3-6b - Land Use Plan No. 2



Project Site Boundary

0 425  
Scale (Feet)

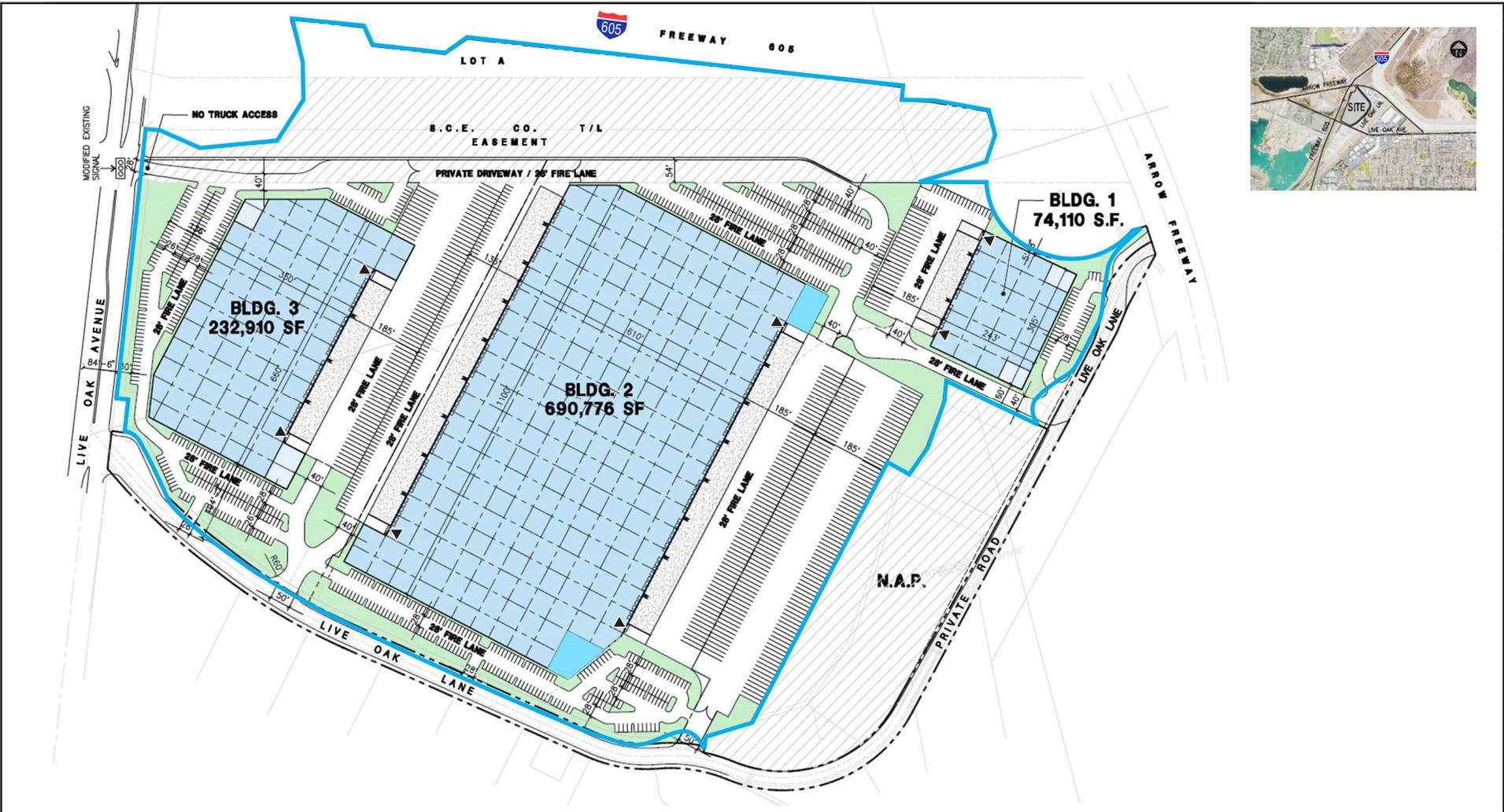


Source: KP Irwindale, LLC., 2023.

### 3. Project Description

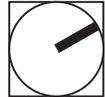
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3. Project Description  
Figure 3-7 - Option 1 Site Plan



Project Site Boundary    Potential Office    Potential Office with 2nd Floor    Warehouse    Drive Thru Door

0      450  
Scale (Feet)



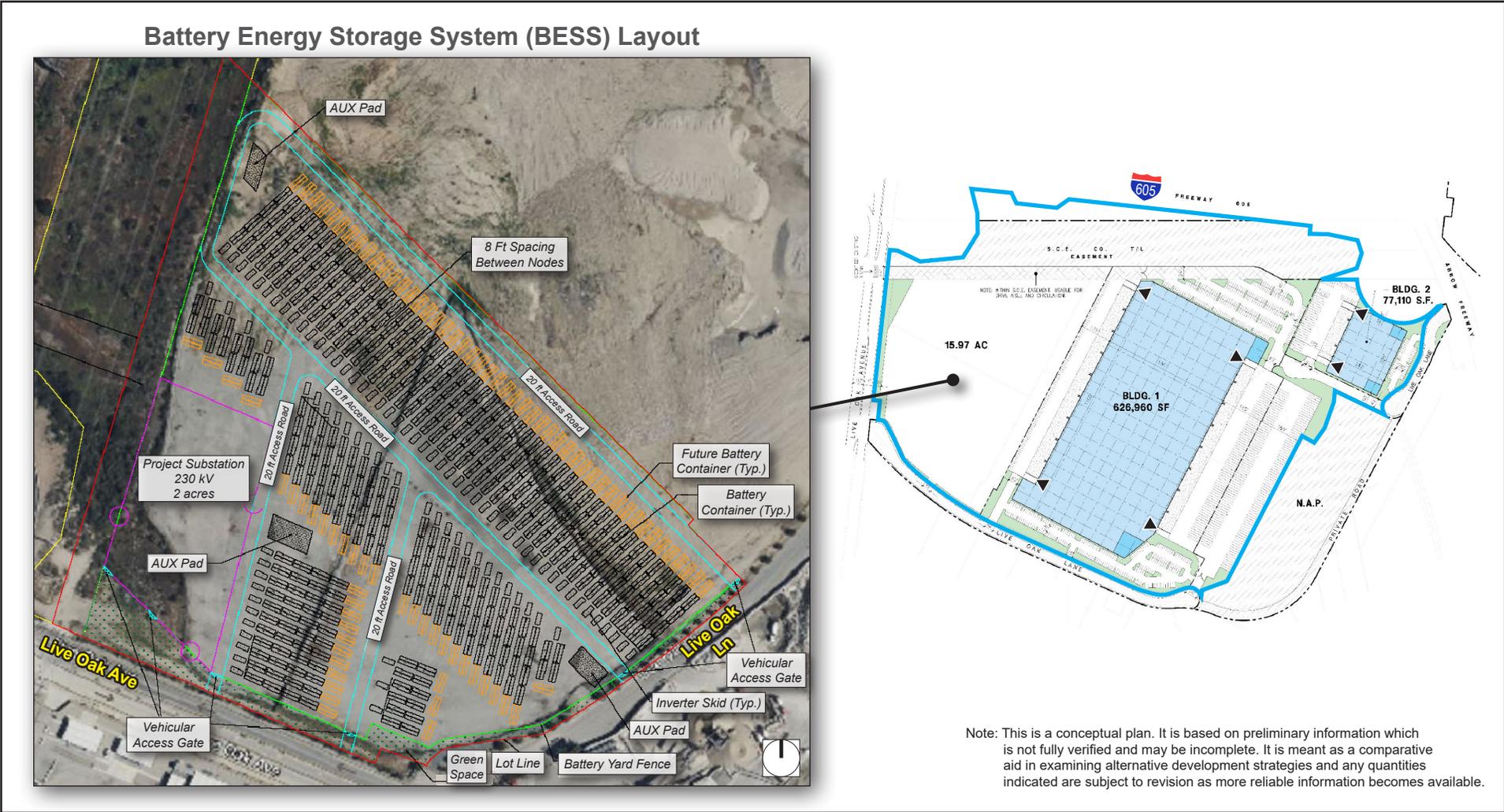
Source: HPA, 2023.

### 3. Project Description

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3. Project Description  
Figure 3-8 - Option 2 Site Plan

Battery Energy Storage System (BESS) Layout



— Project Site Boundary   
  Potential Office with 2nd Floor   
  Warehouse   
 ▼ Drive Thru Door

0 1,000  
Scale (Feet)



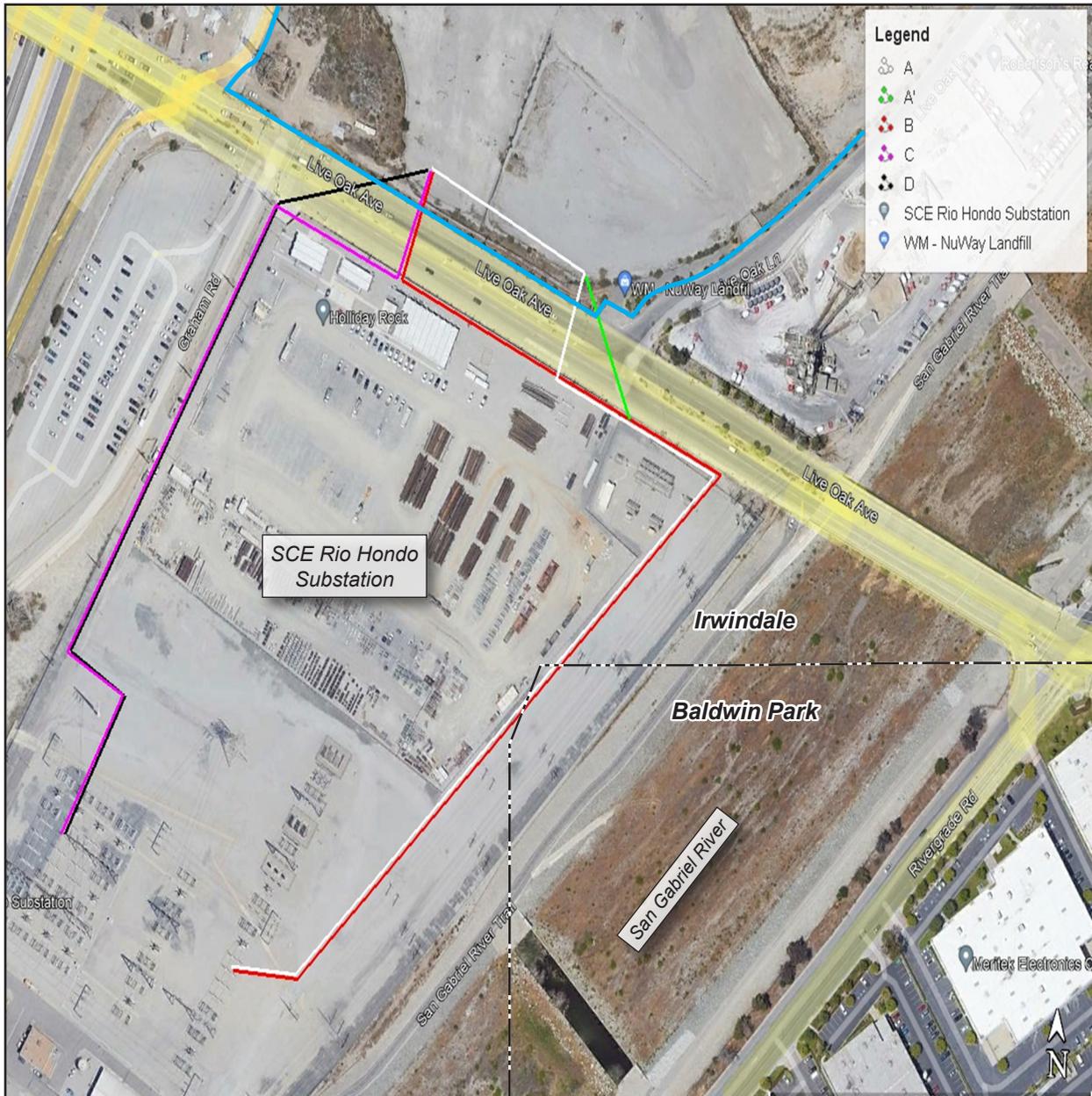
Source: HPA, 2023.

### 3. Project Description

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3. Project Description

Figure 3-9 - Option 2, Electric Tie-Line Alignment Options



Project Site Boundary      City Boundary

0      300  
Scale (Feet)



Source: KP Irwindale, LLC.

### 3. Project Description

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### 3. Project Description

#### Access, Circulation and Parking

##### Option 1

Under Option 1, various access points are proposed to connect internal drive aisles to adjacent streets (see Figure 3-10 a, *Conceptual Circulation and Access Plan Option 1*). The scale and orientation of the roadway network provides strategic routes for efficient mobility to meet the vehicular and non-vehicular needs of employees and visitors, and for the transportation of goods to and from businesses located within the Specific Plan area. Truck restrictions of surrounding streets are observed, and conceptual improvements to accommodate new traffic are identified. The Irwindale General Plan allows commercial trucks on Live Oak Avenue and Arrow Highway.

Vehicular access to the project site would be provided via Live Oak Avenue, Live Oak Lane, and Arrow Highway.

- **Live Oak Avenue** is a public roadway that would provide access through one shared access driveway for trucks and automobiles at the signalized intersection with Graham Road. The four existing travel lanes would remain. The private driveway connection to Live Oak Avenue would be permitted with proper spacing to provide entrances and exits for automobiles and trucks.
- **Live Oak Lane** is currently a private collector road within and along the eastern portion of the project site. Portions of Live Oak Lane would be improved to a public street and deeded to the City. Live Oak Lane would be accessible from Live Oak Avenue and Arrow Highway and provide unrestricted access into, out of, and within the project site for automobiles. Private driveways and drive aisles are permitted to connect individual building sites within the project site to Live Oak Lane. The ultimate alignments of Live Oak Lane within the project site would be determined and designed in conjunction with implementation of development projects. The portion of Live Oak Lane that does not abut the project site would remain a public alley.
- **Arrow Highway** is a public roadway that would provide access through one shared access driveway for trucks and automobiles that connects to Live Oak Lane in the northern portion of the project site and to and from I-605. The four existing travel lanes for Arrow Highway would remain.

Private driveways and drive aisles provide vehicular access for automobiles and trucks to parking lots, truck courts, loading dock areas, and other parts of the project site. The locations, alignments, and widths of private driveways and drive aisles would be determined at the time buildings are designed and positioned in each planning area for implementing development projects and are subject to approval of the City Engineer.

Pedestrian circulation would also be encouraged in the project site through an integrated sidewalk network that is to be designed on individual building sites at the time buildings are designed and positioned in each planning area as part of the implementation of development projects. New sidewalks along Live Oak Avenue, Live Oak Lane, and Arrow Highway would be constructed to facilitate pedestrian circulation.

##### *Off-Site Street Improvements*

Option 1 would include the following improvements to street frontages (see Figure 3-11, *Public Site Improvements*):

### 3. Project Description

- Construction of 750 feet of a five-foot-wide, meandering public sidewalk and minimum 20-foot-wide landscaped parkway on the north side of the portion of Live Oak Avenue that abuts the project site.
- The dedication of a total of 2,160 feet of Live Oak Lane (529 feet and 1,631 feet along the northern and southern portions of Live Oak Lane, respectively) along the proposed project's frontage to improve the street to the City's standard of 60 feet.
- Construction of minimum five-foot-wide sidewalks along both sides of Live Oak Lane and ten-foot-wide landscaped setbacks along the portion of Live Oak Lane that abuts the project site.
- Installation of a new traffic signal at the Live Oak Lane and Live Oak Avenue intersection.
- Installation of five new public streetlights along the north side of Live Oak Lane abutting the project site and eight new public streetlights along the east side of Live Oak Lane abutting the project site.
- Construction of a meandering sidewalk and parkway along the south side of Arrow Highway.

#### ***Parking***

Under Option 1, parking for trailers, trucks, and/or cars would be provided with at-grade paved surface parking lots throughout the project site (see Figure 3-7). Parking for Buildings 1, 2, and 3 would include 286 standard vehicle spaces and 89 trailer parking spaces, 564 standard vehicle spaces and 231 trailer spaces, and 68 standard vehicle spaces and 26 trailer spaces, respectively. The proposed project would include a total of 918 standard vehicle parking spaces and 346 trailer parking spaces. Parking for the proposed project may also include electric-vehicle charging stations, drive aisles, and truck courts.

#### ***Option 2***

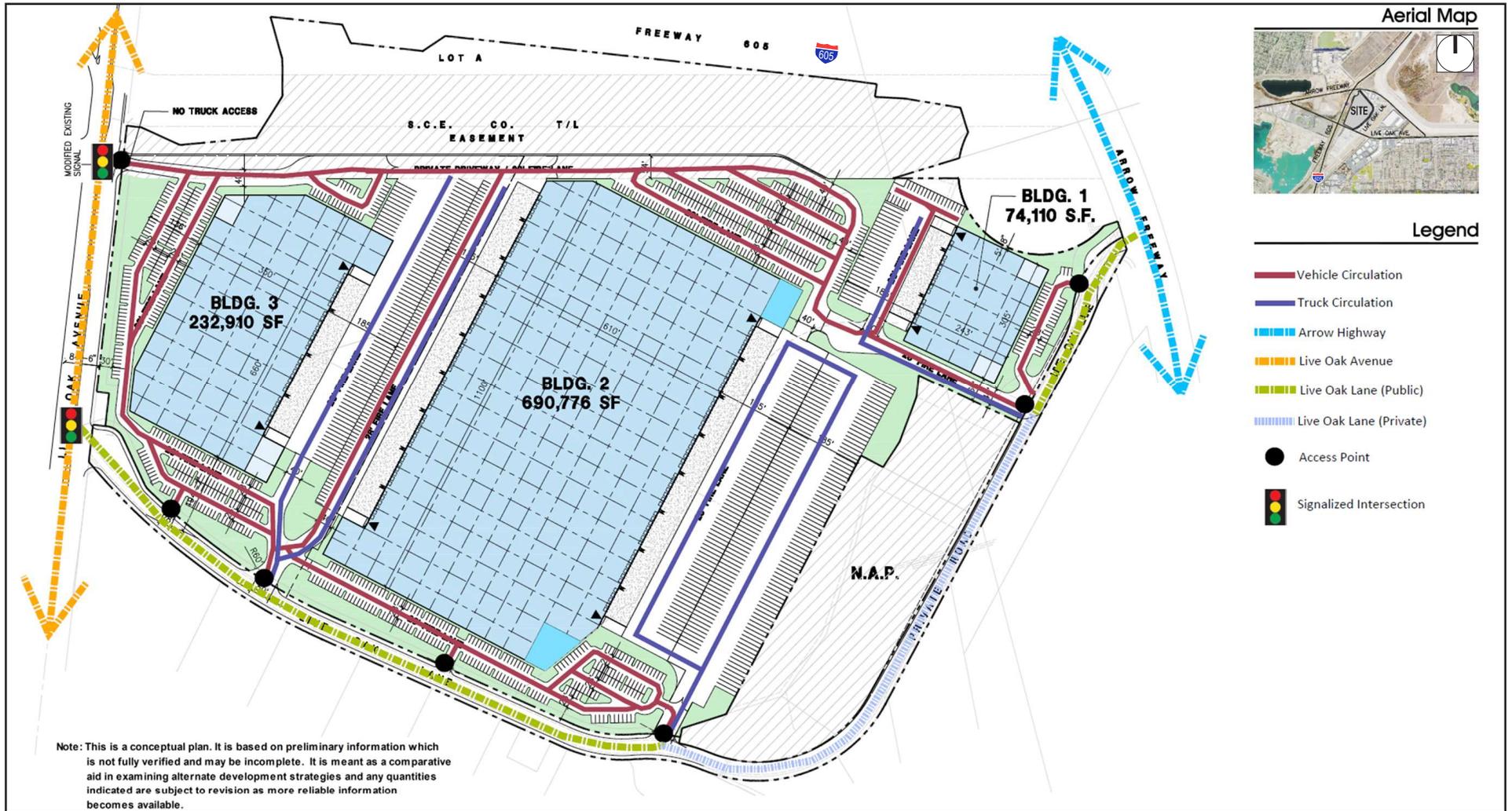
Option 2 would involve the same access plans, as seen on Figure 3-10b, *Conceptual Circulation Plan Option 2*, and off-site street improvements as Option 1. Trailer, truck, and/or car parking would be included in the northern portion of the project site (see Figure 3-8). Parking would consist of 617 standard vehicle spaces and 257 trailer spaces. Internal circulation, parking, and pedestrian plans would also be determined at the time buildings are designed and positioned in each planning area for development projects.

### **Infrastructure**

#### ***Water***

Valley County Water District would provide public and private water infrastructure to service the project site. The project would connect to the existing 12-inch main line on Live Oak Lane to service proposed development and for fire protection services on the project site. Water and fire service could potentially be adequately provided with a private on-site loop utilizing the water line on Live Oak Lane.

3. Project Description  
Figure 3-10a - Conceptual Circulation Plan Option 1

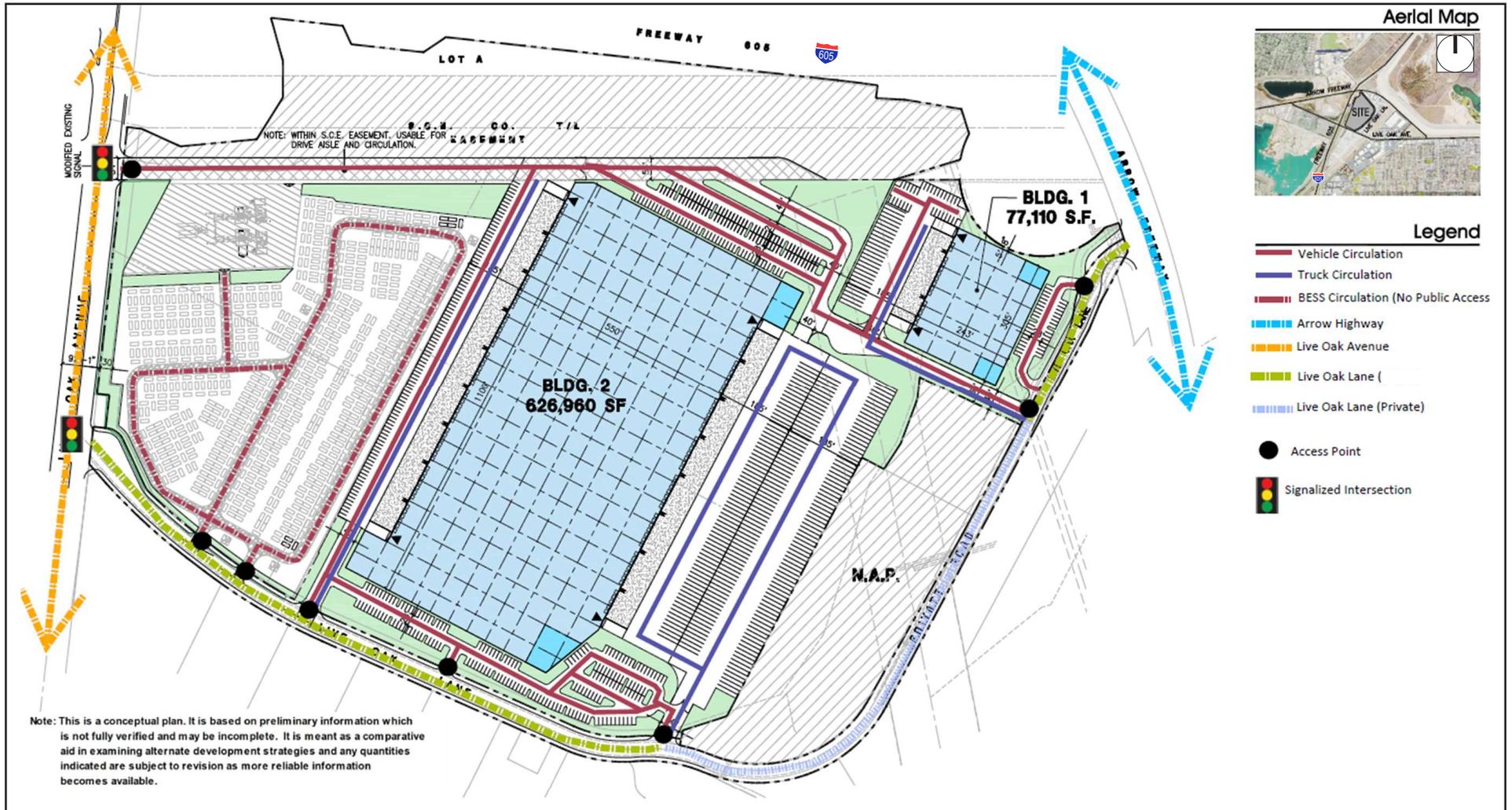


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### 3. Project Description

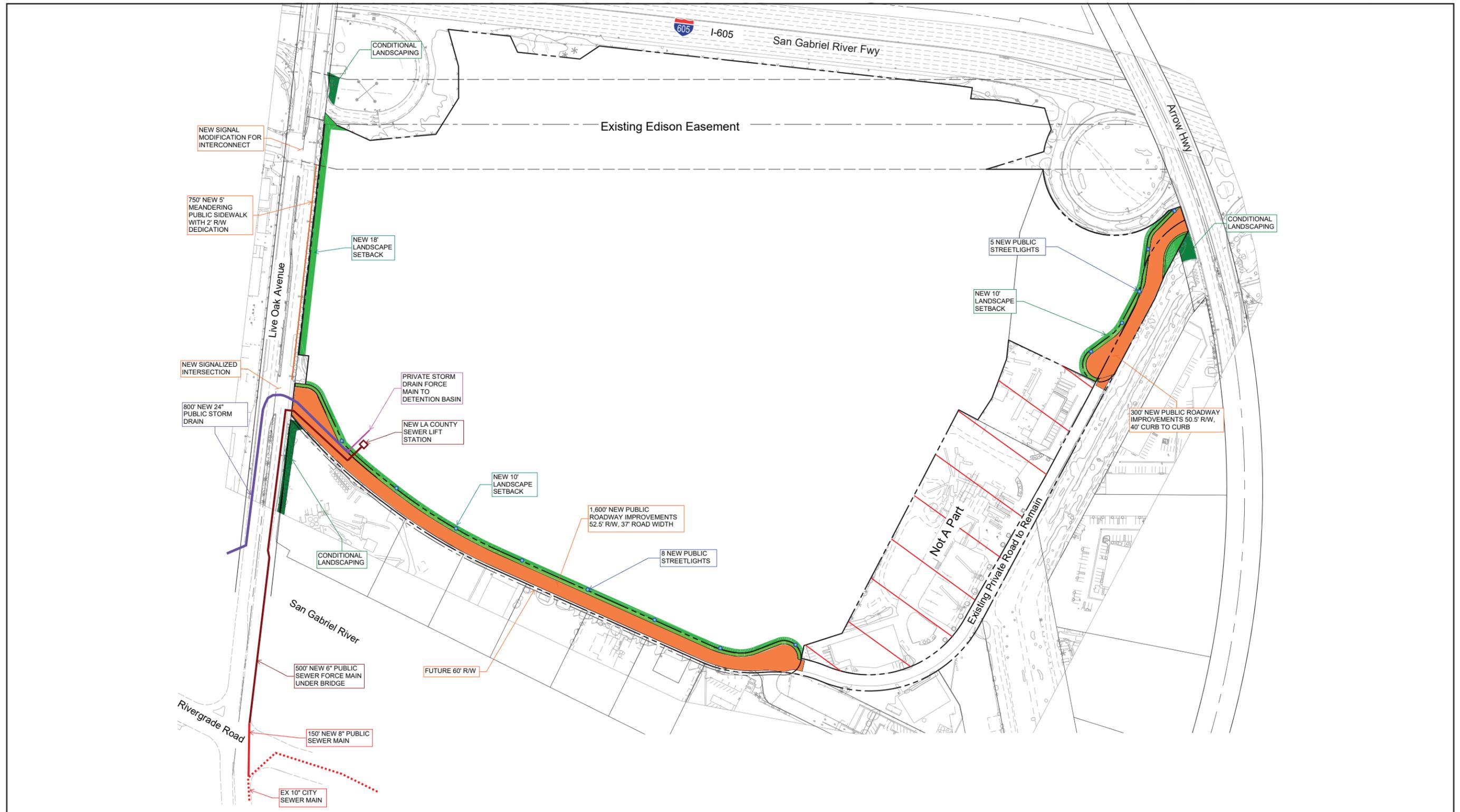
## Figure 3-10b - Conceptual Circulation Plan Option 2



### 3. Project Description

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Figure 3-11 - Public Site Improvements



### 3. Project Description

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### 3. Project Description

To provide water to the proposed development and other areas that require water such as irrigated landscaping, private water infrastructure main lines would be installed off Live Oak Lane. Smaller private lateral connections would be made to deliver water to other planning areas. The location of stub-outs to proposed buildings would be determined at the time buildings are designed and positioned as part of implementing development projects.

#### *Sanitary Sewer*

Wastewater treatment services for the project site would be provided by the City. Existing sewer infrastructure in the area consists of a 10-inch sewer line along Live Oak Avenue and a 15-inch sewer line along Commerce Drive and Center Street on the east side of the project site. The 10-inch sewer line on Live Oak Avenue is under the jurisdiction of the City of Irwindale, and the 15-inch sewer line on Commerce Drive and Center Street is under the jurisdiction of the City of Baldwin Park.

The proposed project would connect to sewer mains through a new connection—a new 6-inch force main sewer line that would drain south and east on Live Oak Avenue to the existing 10-inch sewer line on Live Oak Avenue and Rivergrade Road. The locations and alignments of all sewer mains, laterals, and connections points would be subject to the approval of the City Engineer and require encroachment permits from the City of Irwindale Public Works Engineering Department.

#### *Stormwater*

The project site drains to off-site conveyances maintained by the Los Angeles County Flood Control District. The proposed project would construct a new 24-inch gravity storm drain that connects to the existing storm drain on Live Oak Avenue. Development projects would connect to these facilities and would be required to comply with stormwater permitting regulations of County Flood Control. Stormwater would be collected through a network of basins and bioswales throughout the Specific Plan area. Individual development projects would use a variety of low-impact development (LID) measures and best management practices (BMP) to manage stormwater. The primary LID measure for the proposed project is detention basins, capable of retaining the required water volumes, designed with either soft bottoms and/or dry wells for infiltration purposes as water quality measures. Where feasible, subsurface storage chambers, capture and reuse, biofiltration, and/or inlet fillers could also be implemented. The type and extent of the water quality infiltration measures would ultimately be determined based on the proposed project's geotechnical report findings and recommendations. All LID measures and BMPs would comply with the County of Los Angeles Building Code as adopted by the City and require grading and drainage permits from the Building and Safety Division.

#### *Solid Waste*

The City of Irwindale contracts solid waste collection services through Athens Services. Contract services would be expanded to provide solid waste collection services in the Specific Plan area. All solid waste collection would be required to comply with federal, state, and local regulations for waste reduction and recycling.

### 3. Project Description

#### *Dry Utilities*

SCE provides electricity to the Specific Plan area and maintains above-ground power lines. SCE would serve electrical requirements for the project in accordance with the California Public Utilities Commission and Federal Energy Regulatory Commission tariffs.

Southern California Gas Company provides natural gas to the Specific Plan area. As required, additional points of connection to existing gas lines would be provided. The service would be in accordance with the Gas Company's policies and extension rules on file with the California Public Utilities Commission.

All dry utilities would be installed underground. The locations of lateral connections, transformers, switches, pull boxes, and dry utility manholes would be determined at the time buildings are positioned in each planning area in conjunction with development implementation. Main lines shall be in Live Oak Lane, wherever feasible.

#### **Landscaping and Green Space**

The preliminary landscape plans for Options 1 and 2 are shown in Figures 3-12, *Preliminary Landscape Plan for Option 1*, and 3-13, *Preliminary Landscape Plan for Option 2*. Because the Specific Plan area is a reclaimed quarry, no natural areas remain and thus no natural open spaces areas can be preserved as part of the proposed project. The proposed project's landscaping and green-space plan is thus focused on ornamental landscaping. The landscaping and green-space plan under Option 1 serves to add visual appeal while being sensitive to the environment and Southern California climate by using drought-tolerant and native materials. Landscaping would cover approximately 5.8 acres throughout the project site, but most prominently at street corners, along roadways, at building entrances, and in passenger car parking lots.

Thematic entry treatments would be installed at the Live Oak Lane/Live Oak Avenue and Live Oak Lane/Arrow Highway intersections and at the southwest corner of the Specific Plan area at Live Oak Avenue and Graham Road. These entry treatments would contain monument signage, water features, flowering accent and palm trees, groundcover, and shrub masses.

Streetscape landscaping along Live Oak Lane would include a combination of evergreen, palm tree clusters, and deciduous trees as well as flowering accent trees and groundcover. Furthermore, the north end of the project site abutting Arrow Highway and the south end of the project site along Live Oak Avenue would be joined by landscaped areas along the street frontages and in the planning areas between buildings. The landscaped areas along Live Oak Avenue would consist of street trees, backdrop trees, palm trees clusters, assorted accent planting, grass, and shrubs. The landscaped areas of the project site along Live Oak Avenue and Arrow Highway would also include entry monumentation.

#### *Option 2*

Landscaping for the proposed project under Option 2 would cover approximately 4.3 acres, also throughout the project site. The design standards and guidelines for the landscaping and green-space plan for Option 2 would be the same as for Option 1.

3. Project Description

Figure 3-12 - Preliminary Landscape Plan – Option 1



PLANTING LEGEND

TREES					
SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
	<i>Chitalpa tashkentensis</i> Chitalpa	24" Box	90	L	Standard
	<i>Lagerstroemia</i> 'Muskogee' Crape Myrtle	24" Box	19	M	Multi
	<i>Pinus canariensis</i> Canary Island Pine	24" Box	37	M	Standard
	<i>Pinus eldarica</i> Afghan Pine	24" Box	6	L	Standard
	<i>Pistacia chinensis</i> Chinese Pistache	24" Box	46	L	Standard
	<i>Platanus racemosa</i> California Sycamore	24" Box	23	M	Multi
	<i>Quercus agrifolia</i> Coast Live Oak	48" Box	21	M	Multi
	<i>Rhus lancea</i> African Sumac	24" Box	79	L	Standard
	<i>Tristantia conferta</i> Brisbane Box	15 Gal	92	M	Standard
	<i>Washingtonia robusta</i> Mexican Fan Palm	10' bt	8	L	Skinned

SHRUBS					
SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
	<i>Acca sellowiana</i> Pineapple Guava	5 Gal	0	M	
	<i>Callistemon</i> 'Little John' Dwarf Bottle Brush	5 Gal	0	M	
	<i>Dieters bicolor</i> Fortnight Lily	5 Gal	0	M	
	<i>Leucophyllum</i> f. 'Green Cloud' Texas Ranger	5 Gal	0	L	
	<i>Leucostemum</i> l. Texarum Texas Privet	5 Gal	0	M	
	<i>Rhamnus californica</i> Coffeeberry	5 Gal	0	L	
	<i>Salvia</i> c. 'Allen Chickering' Allen Chickering Sage	5 Gal	0	L	
	<i>Salvia greggii</i> Autumn Sage	5 Gal	0	L	
	<i>Salvia leucantha</i> Mexican Sage	5 Gal	0	L	
	<i>Senna artemisioides</i> Feathery Cassia	5 Gal	0	L	
	<i>Westringia fruticosa</i> Coast Rosemary	5 Gal	0	L	

ACCENTS					
SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
	<i>Agave</i> 'Blue Flame' Blue Flame Agave	5 Gal	0	L	
	<i>Agave</i> 'Blue Glow' Blue Glow Agave	5 Gal	0	L	
	<i>Aloe striata</i> Coral Aloe	1 Gal	0	L	
	<i>Dasylirion wheeleri</i> Desert Spoon	5 Gal	0	L	
	<i>Hesperaloe parviflora</i> Red Yucca	5 Gal	0	L	
	<i>Lantana</i> 'Gold Mound' Yellow Lantana	5 Gal	0	L	

GROUND COVER					
SYMBOL	BOTANICAL/COMMON NAME	SIZE	SPACING	WUCOLS	REMARKS
	<i>Acacia redolens</i> 'Low Boy' Dwarf Acacia	1 Gal	8" O.C.	L	
	<i>Baccharis</i> p. 'Pigeon Point' Dwarf Coyote Bush	1 Gal	6" O.C.	L	
	<i>Hemerocallis hybridus</i> -Yellow Yellow Day Lily	1 Gal	24" O.C.	M	
	<i>Lonicera</i> j. 'Halliana' Hall's Honeysuckle	1 Gal	48" O.C.	L	
	<i>Muhlenbergia capillaris</i> Pink Muhly	1 Gal	36" O.C.	L	Grass
	<i>Myoporum parvifolium</i> Myoporum	1 Gal	36" O.C.	L	
	<i>Rosmarinus</i> o. 'Huntington Carpet' Prostrate Rosemary	1 Gal	48" O.C.	L	
	<i>Sestertia autumnalis</i> Moor Grass	1 Gal	18" O.C.	M	Grass
	<i>Trachelospermum jasminoides</i> Star Jasmine	1 Gal	24" O.C.	M	

--- Project Site Boundary

Source: Hunter Landscape, 2022.

0 225  
Scale (Feet)

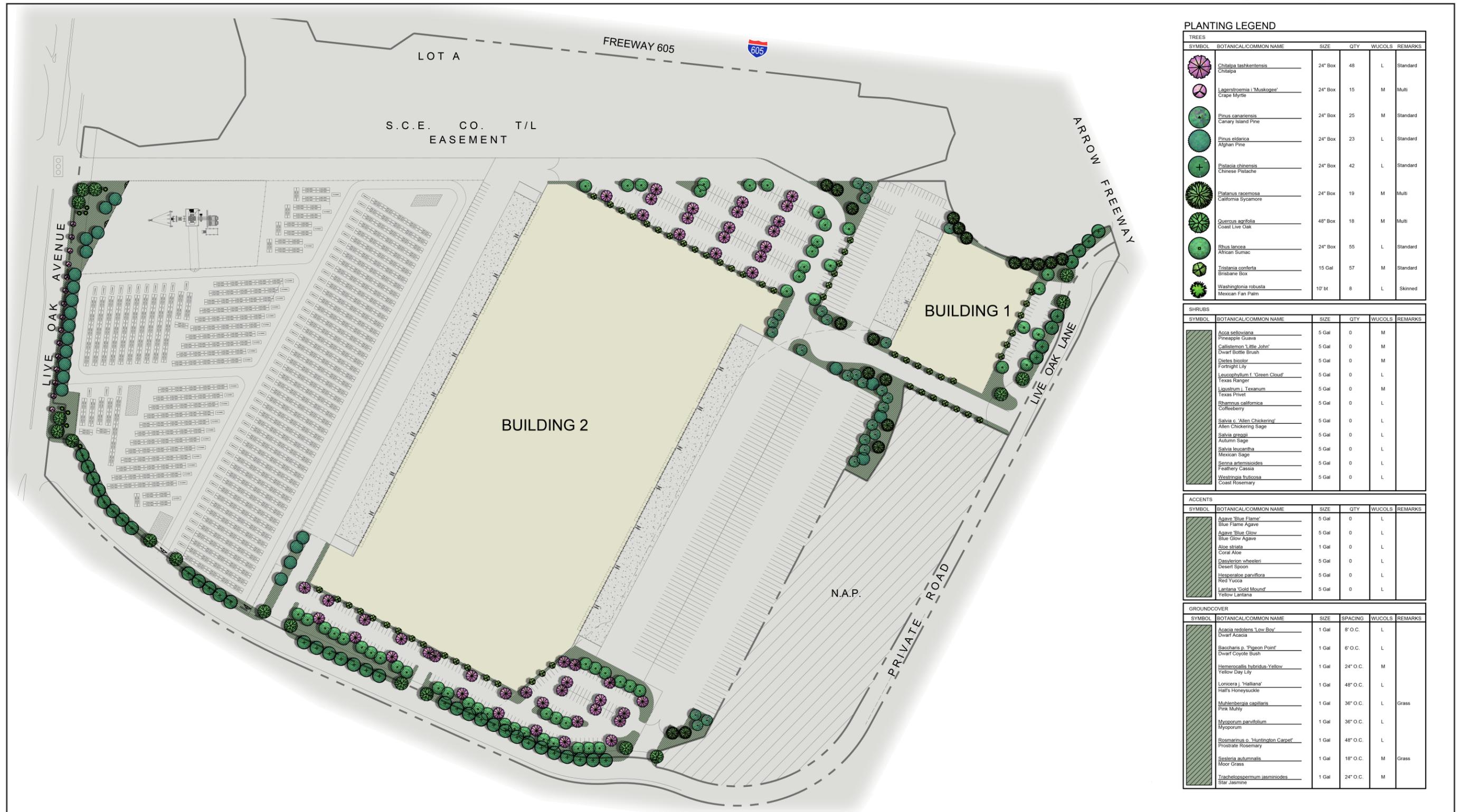


### 3. Project Description

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3. Project Description

Figure 3-13 - Preliminary Landscape Plan – Option 2



--- Project Site Boundary

Source: Hunter Landscape, 2022.

0 225  
Scale (Feet)



### 3. Project Description

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## 3. Project Description

### 3.3.2 Project Phasing and Construction

#### Site Reclamation

As described under “Nu-Way Live Oak Reclamation Plan” in Section 3.3.1.1, *Project Background*, the Operations Plan for site reclamation has been approved by the Regional Water Quality Control Board. The Operations Plan is currently underway and will be completed prior to implementation of the Specific Plan. This phase is not a part of the proposed project and is not analyzed in this Draft EIR.

#### Project Phasing

##### *Option 1*

##### ***Construction***

The analysis in this DEIR assumes that project development would take approximately 4.5 years and that the buildings would be completed and occupied sometime in late 2027 and/or early 2028. Detailed assumptions regarding impact analysis that depend on project schedule are included in their respective sections (e.g., air quality, traffic). Although the project may be delayed beyond the original schedule estimates, the analysis will be conservative to account for worst-case scenarios.<sup>1</sup>

Off-site infrastructure improvements would commence after all related design and permits are approved, and construction would commence no later than the issuance of the first building permit. Completion of improvements would be no later than the issuance of a certificate of occupancy for a building that triggers the need to complete such work.

##### ***Operations***

The industrial buildings would have the flexibility to support a multitude of uses, including warehousing, distribution, and manufacturing. Daily operations would be dependent on the specific use but would include an operational workforce, maintenance, and security.

##### *Option 2*

##### ***Construction***

Construction of the industrial buildings under Option 2 would include the same timeline as under Option 1. Assumptions regarding impact analysis that depend on project construction would be the same for Option 2 as for Option 1.

Like Option 1, off-site infrastructure improvements would commence after all related design and permits are approved, and construction would commence no later than the issuance of the first building permit under

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<sup>1</sup> For example, for construction-related air emissions, the analysis represents a “worst case.” Emissions factors for construction decrease as time passes and emission regulations become more stringent. A delayed construction schedule would also not alter the findings of the traffic study since cumulative development is based on year 2040.

### 3. Project Description

Option 2. Completion of improvements would be no later than the issuance of a certificate of occupancy for a building that triggers the need to complete such work.

The BESS would take approximately 18 months to construct after initial groundbreaking. The BESS is estimated to achieve its commercial operations date by late 2027. The BESS may be constructed in phases, in which case there may be shorter construction timelines for different phases of the project. Limited water would be required during the construction phase(s), and it would be trucked in as necessary. The labor workforce to construct the BESS would be made up of union labor. The BESS is expected to hire 220 total temporary workers during the construction phase. The BESS would comply with Occupational Safety and Health Administration (OSHA) Standards during and after the construction phase. Additionally, NFPA (National Fire Protection Association) 70E Standards for hot electrical work would be strictly adhered to and enforced by project management.

Construction of the BESS and onsite collector substation would include bringing the post-reclamation rough grading to finish grade; installing pile, pier, or slab on grade foundations for the BESS and collector substation equipment and structures; installing equipment and erecting structures; trenching, conduit bank installation, and pulling cables for the underground electric connections; and completing and testing connections. DC cables would be run between all the BESS units and associated inverters. AC cable in underground conduits would be strung between all the critical infrastructure of the BESS until their respective termination at the BESS's substation. The substation would then be connected to the utility interconnection facilities at the Rio Hondo Substation via the electric tie-line. The BESS shall be designed to comply with all applicable local, state, and federal safety regulations.

Construction of the tie-line would include installing tie-line support poles and stringing tie-line cables and optical ground wire. The support pole installations are not expected to require work in public rights-of-way except for stringing overhead line across Live Oak Avenue. All construction disturbance would be in developed terrain with no surface disturbance to sensitive habitat. The BESS developer would be responsible for construction of the tie-line on-site, and SCE would be responsible for construction of the tie-line on the SCE property.

The tie-line support pole design is expected to include a drilled concrete pier foundation for each pole. A large-diameter auger would be used to excavate holes that could range up to 12 feet in diameter. Turning poles would require the deepest foundations with depths of 30 to 40 feet based on soil conditions. Excavated soil would be used for grading on the BESS site or trucked off-site for use as fill at a permitted construction site or for disposal at a permitted disposal site. Following excavation, a pre-assembled reinforcing steel cage and anchor bolt cage would be installed in each hole and then concrete would be poured. The concrete curing period is approximately one month, during which time workers would remove the concrete forms and place backfill around the foundations if needed. As described in Section 5.9. *Hydrology and Water Quality*, historically high regional groundwater is estimated to be on the order of 75 feet below grade, so groundwater is not anticipated to be encountered during borings. Following foundation construction, the poles would be erected with standard construction equipment such as flatbed trucks, cranes, and man-lifts.

### 3. Project Description

Prior to installing the tie-line overhead conductor cables and ground wire, temporary guard structures would be put in place at the Live Oak Avenue crossings and other locations where the new conductor could come into contact with existing electrical and communication facilities or vehicular and/or pedestrian traffic in the event the line were to accidentally fall during stringing operations. Guard structures can vary and may include features such as embedded poles with attached cross-beams, or in paved areas a boom or bucket truck may be used as a guard structure. Guard poles, if used, would be removed following the completion of conductor stringing operations and the holes would be backfilled with soil.

Flaggers may be used to temporarily hold traffic for a brief period while the overhead lines are being installed over Live Oak Avenue, or netting connecting the guard structures may be used to mitigate the hazard of a conductor potentially falling onto the road. All required encroachment permits and road crossing approvals would be followed, including implementation of any special guard structure procedures or requirements as directed by jurisdictional agency.

Construction in the SCE substation to prepare the interconnection position would use conventional construction equipment and methods. The areas where new equipment is needed are already graded and gravel surfaced. No grading is expected to be needed. Foundations, structures, equipment, and aboveground connections would be installed. Cable trenches would be excavated and lined with concrete; conduit and cables would be installed and connected; and the cable trenches would be finished with removable covers at the ground surface.

#### *Operations*

Like Option 1, the industrial buildings under Option 2 would have the flexibility to support a multitude of uses, including warehousing, distribution, and manufacturing. Daily operations would be dependent on the specific use but would include an operational workforce, maintenance, and security.

The BESS would be unmanned but may include an operational and maintenance building with restrooms and space for strategic spare parts. The long-term operational workforce would entail contracted maintenance staff who would maintain the facility on a periodic basis during project operations. The proposed project would likely require a six-person crew for maintenance visits once every two to three months on average. The BESS would be primarily operated remotely and could operate up to 24 hours per day and seven days per week. A comprehensive security system would be included and remotely monitored on a continuous basis.

BESS facilities would not have any combustion processes or other stationary sources of emissions to air except a backup generator with emissions from periodic testing. Other operations emission sources would be limited to vehicles and equipment used for occasional maintenance and inspections. Operations would not consume water other than occasional flushing of fire water supply systems, and small quantities of potable water if a building is included with sanitary facilities for use by workers conducting periodic inspections and maintenance. No wastewater would be generated, except sanitary wastewater if sanitary facilities are included in the building.

The operation of the BESS would not generate loud noise. Electrical equipment and motors and fans for cooling the electrical equipment would generate low levels of noise, typically in the range of 60 to 80 dBA within several feet. Equipment would be set back from property lines so noise at the site boundaries would be

### 3. Project Description

attenuated by distance to the property line and further attenuated by the block wall at the project perimeter. BESS facilities permitted throughout the state have demonstrated low levels of noise compliant with their respective local noise ordinances. After the equipment vendor has been selected, noise modeling results demonstrating compliance with City standards would be provided with the applications for building permits.

The BESS would be designed in accordance with NFPA Part 855 standards for energy storage systems and would include multiple automatic and manual power-down/safety mechanisms, including early warning detection systems for excess heat and smoke, along with a centralized Fire Alarm Control Panel that communicates any potential risk to site operators and the local fire department. There would be a backup generator for critical loads. Electrical and fire systems would be designed to open breakers automatically during fault conditions. Each fire protection system would have a signal that would trigger core power-down during fire, electrical fire, overheating, or other issues. The entire project power-down would occur automatically during electrical fault conditions (e.g., high-voltage ground fault). In addition, the BESS would be equipped with breakers that could be opened manually to power down different equipment or the proposed project. A comprehensive Emergency Response Plan would be developed for the site in accordance with CalEPA requirements, and a Spill Prevention, Control, and Countermeasures Plan would be developed in accordance with 40 CFR 112 for oil-filled transformers. The project design would be subject to fire department review, and the site would be subject to periodic fire authority inspections, and a permit issued by the fire department pursuant to NFPA Part 855 requirements.

The proposed BESS under Option 2 would be designed to be in operation for 25 years. After completion of project operations, if not repowered with then-current technology, most of the electrical equipment (breakers, transformers, inverters) would be removed and recycled. Project batteries would be returned to the battery manufacturer for recycling. Equipment foundations and pads would be demolished and removed.

### **INTENDED USES OF THE EIR**

This Draft EIR is a project DEIR that examines the environmental impacts of the proposed Irwindale Gateway Specific Plan. This DEIR also addresses various actions by the City and others to adopt and implement the proposed project. It is the intent of this DEIR to evaluate the environmental impacts of the proposed project, thereby enabling the City of Irwindale, other responsible agencies, and interested parties to make informed decisions with respect to the requested entitlements. The anticipated approvals required for this project are shown in the following table.

### 3. Project Description

Lead Agency	Action
City of Irwindale	<ul style="list-style-type: none"> <li>• Certification of the Irwindale Gateway Specific Plan EIR</li> <li>• Approval of City of Irwindale General Plan Amendment</li> <li>• Approval of City of Irwindale Zone Change</li> <li>• Approval of City of Irwindale Zone Ordinance Amendment (adopting the Irwindale Gateway Specific Plan)</li> <li>• Approval of Tentative Parcel Map</li> </ul>
Responsible Agencies	Action
Los Angeles Regional Water Quality Control Board	<ul style="list-style-type: none"> <li>• Issuance of National Pollution Discharge Elimination System (NPDES) Permit</li> <li>• Issuance of Construction General Permit Coverage</li> <li>• Issuance of Industrial General Permit Coverage</li> </ul>
United States Army Corps of Engineers	<ul style="list-style-type: none"> <li>• Issuance of CWA Section 404 Permit to regulate dredged or fill material into waters of the United States</li> </ul>
California Department of Toxic Substances Control	<ul style="list-style-type: none"> <li>• Approval of Demolition Plan, Waste Management Plan, Site Assessment Workplan, Summary of Findings, and Response Plan</li> </ul>
California Department of Fish and Wildlife	<ul style="list-style-type: none"> <li>• Confirmation of final mitigation measure per the Joint Project Review (JPR 18-09-24-01)</li> </ul>

### 3. Project Description

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## 4. Environmental Setting

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### 4.1 INTRODUCTION

This section provides a “description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, ... from both a local and a regional perspective” (Guidelines § 15125[a]), pursuant to provisions of the California Environmental Quality Act (CEQA) and the CEQA Guidelines. The environmental setting provides the baseline physical conditions from which the lead agency will determine the significance of environmental impacts resulting from the proposed project. Grading and compaction requirements of the project site have been approved via the Nu-Way Live Oak Reclamation Operations Plan prior to the release of the NOP for the proposed project. Therefore, the site conditions after implementation of the Operations Plan serve as the baseline conditions for analysis in the EIR.

### 4.2 STATE ENVIRONMENTAL SETTING

#### 4.2.1.1 CALIFORNIA PUBLIC UTILITIES COMMISSION STORAGE PROCUREMENT POLICY

With the increase in integration of renewable resources, batteries serve to mitigate fluctuations in these resources by storing energy to release to the grid at a time where these resources are not available. In response to increasing State goals and targets to reduce greenhouse gas (GHG) emissions and meet air quality standards, as well as to achieve a carbon free grid, the California Public Utilities Commission has formulated its storage procurement policy with three primary goals for energy companies throughout California:

- Grid optimization, including peak reduction, contribution to reliability needs, or deferral of transmission and distribution upgrade investments.
- Integration of renewable energy.
- GHG reductions in support of the State's targets. (CPUC 2024)

### 4.3 REGIONAL ENVIRONMENTAL SETTING

#### 4.3.1 Regional Location

The City of Irwindale is in eastern Los Angeles County in Southern California. Irwindale is bordered by the cities of Arcadia and Monrovia to the west; the city of Azusa to the east; the cities of El Monte, West Covina, and Baldwin Park to the south; and the city of Duarte to the north (see Figure 3-1).

## 4. Environmental Setting

Figure 3-1 provides a visual of regional access to the city provided by various freeways. Interstate 605 (I-605) traverses Irwindale in a north-south direction; I-210 travels east-west along the northern portion of the city; and Interstate 10 (I-10) travels in an east-west direction in Baldwin Park to the south of Irwindale.

### 4.3.2 Regional Planning Considerations

#### 4.3.2.1 SCAG REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY

The Southern California Association of Governments (SCAG) is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. SCAG is the federally recognized metropolitan planning organization (MPO) for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the region's MPO, SCAG cooperates with South Coast Air Quality Management District (AQMD), the California Department of Transportation, and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives, as discussed below.

The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), known as Connect SoCal, is updated periodically to allow for the consideration and inclusion of new transportation strategies and methods. On September 3, 2020, SCAG's Regional Council unanimously voted to approve and fully adopt Connect SoCal (2020–2045 RTP/SCS) and the addendum to the Connect SoCal Program EIR. Connect SoCal is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. The 2020-2045 RTP/SCS includes a “core vision” that centers on better maintaining and managing the transportation network for moving people and goods; expanding mobility choices by locating housing, jobs, and transit closer together; and increasing investments in transit and complete streets (SCAG 2020).

The RTP/SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement). The RTP/SCS is meant to provide growth strategies that will achieve the regional GHG emissions reduction targets identified by the California Air Resources Board. However, the RTP/SCS does not require that local general plans, specific plans, or zoning be consistent with the RTP/SCS; instead, it provides incentives to governments and developers for consistency. The proposed project's consistency with the applicable 2020-2045 RTP/SCS policies is analyzed in detail in Section 5.6, *Greenhouse Gas Emissions*, and Section 5.9, *Land Use and Planning*.

#### 4.3.2.2 SOUTH COAST AIR BASIN AIR QUALITY MANAGEMENT PLAN

The City is in the South Coast Air Basin (SoCAB), which is managed by the South Coast AQMD. The SoCAB includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino Counties. Pollutants emitted into the ambient air by stationary and mobile sources and are regulated by federal and state law and standards are detailed in the SoCAB Air Quality Management Plan (AQMP). Air pollutants

## 4. Environmental Setting

for which Ambient Air Quality Standards (AAQS) have been developed are known as criteria air pollutants and are ozone (O<sub>3</sub>), carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide, coarse inhalable particulate matter (PM<sub>10</sub>), fine inhalable particulate matter (PM<sub>2.5</sub>), and lead. VOC and NO<sub>x</sub> are criteria pollutant precursors and go on to form secondary criteria pollutants, such as O<sub>3</sub>, through chemical and photochemical reactions in the atmosphere. Air basins are classified as attainment/nonattainment areas for particular pollutants depending on whether they meet AAQS for that pollutant. Based on the SoCAB AQMP, the SoCAB is designated nonattainment for O<sub>3</sub> and PM<sub>2.5</sub> under the California and National AAQS, nonattainment for lead (Los Angeles County only) under the National AAQS, and nonattainment for PM<sub>10</sub> under the California AAQS.<sup>1</sup> The proposed project's consistency with the applicable AAQS is discussed in Section 5.2, *Air Quality*.

### 4.3.2.3 GREENHOUSE GAS EMISSIONS REDUCTION LEGISLATION

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-03-05; Assembly Bill 32 (AB 32), the Global Warming Solutions Act (2008); and Senate Bill 375 (SB 375), the Sustainable Communities and Climate Protection Act.

Executive Order S-3-05, signed June 1, 2005, set the following GHG reduction targets for the state:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-3-05. Based on the GHG emissions inventory conducted for its 2008 Scoping Plan, the California Air Resources Board (CARB) approved a 2020 emissions limit of 427 million metric tons of carbon-dioxide-equivalent emissions (MMTCO<sub>2e</sub>) for the state (CARB 2008). CARB is required to update the Scoping Plan every five years. In 2015, the governor signed Executive Order B-30-15 into law, establishing a GHG reduction target for year 2030, which was later codified under SB 32 (2016). The 2016-2017 update to the Scoping Plan addresses the 2030 target of 40 percent below 1990 levels.

In 2008, SB 375 was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce vehicle miles traveled and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 17 regions in California managed by an MPO. In addition, SB 375 requires CARB to update the targets for the MPOs every eight years. The targets as set by CARB in 2010 for the SCAG region are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and

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<sup>1</sup> CARB approved SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM<sub>10</sub> to attainment for PM<sub>10</sub> under the national AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM<sub>10</sub> standards during the period from 2004 to 2007. In June 2013, the EPA approved the State of California's request to redesignate the South Coast PM<sub>10</sub> nonattainment area to attainment of the PM<sub>10</sub> National AAQS, effective on July 26, 2013.

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a 13 percent per capita reduction from 2005 GHG emission levels by 2035 (CARB 2010). In 2017, SCAG's targets were updated to an 8 percent per capita GHG reduction in 2020 from 2005 levels (unchanged from the 2010 target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 13 percent) (CARB 2018). The proposed project's consistency with the applicable regional GHG emissions reduction target goals is analyzed in Section 5.6, *Greenhouse Gas Emissions*.

### 4.4 LOCAL ENVIRONMENTAL SETTING

#### 4.4.1 Local Location

The project site is 66.64 acres and encompasses a former sand and gravel quarry, the closed NuWay Live Oak Inert Landfill, and a former street-cleaning business. The site is bounded by I-605 to the west, Live Oak Lane to the north and east, and Live Oak Avenue to the south (see Figures 3-2 and 3-3).

#### 4.4.2 Surrounding Land Uses

Surrounding land uses directly adjacent to the project site include commercial and industrial businesses to the north and east along Live Oak Lane, a Southern California Edison Substation (Rio Hondo) to the south, the Irwindale Speedway motorsports facility to the southwest across the I-605, and an industrial business park (currently under construction) for the Park at Live Oak Specific Plan to the west across the I-605 (see Figure 3-3).

Further north across Arrow Highway are aggregate mining uses, the Kare Youth League sports and recreation facility, and the Santa Fe Flood Control Basin. Further east past the industrial and commercial business are the San Gabriel River and San Gabriel River Trail.

#### 4.4.3 Physical Site Conditions

##### 4.4.3.1 FORMER LAND USES

As described in Chapter 3, *Project Description*, a majority of the project site was a former sand and gravel quarry (APN 8532-002-044). When mining operations ceased in approximately 1973, the depleted quarry pits extended to maximum depths of 180 feet below ground surface. The Regional Water Quality Control Board adopted Waste Discharge Requirements Order No. 91-016 on January 28, 1991, for the landfill to be operated as an inert solid waste disposal facility. The Nu-Way Live Oak Inert Landfill operated from approximately 1996 to 2005. Under the landfill operation, the former quarry was backfilled with inert materials to its capacity at street level. However, the fill was not properly compacted. Inert waste from the landfill is currently being excavated, processed, and recompacted in the landfill as part of the property's reclamation process to accommodate an end use. In 1988, an EIR (SCH #1988060819) was approved for the Nu-Way Live Oak Inert Landfill. A supplemental EIR was approved in 1993, followed by an EIR (SCH #1988060819) and CUP No. 96-20, which were certified and approved in 1994, for the establishment and operation of the Nu-Way Live Oak Inert Landfill. In 2005, a Mitigated Negative Declaration for early closure of the Nu-Way Live Oak Inert Landfill was approved. In 2011, a Negative Declaration and CUP were approved permitting the importing, exporting,

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stockpiling, and crushing of broken concrete and asphalt concrete as crushed miscellaneous base for construction projects.

In 2022, the Regional Water Quality Control Board approved an Operations Plan for site reclamation. This activity has been permitted by the City of Irwindale Grading Permit No. 05062206150001, issued on October 27, 2022, and is covered by a Stormwater Pollution Prevention Plan (WDID #4 19C397954). The Operations Plan allows for reclamation of the project site through the placement of approximately 8.3 million cubic yards of fill material. Under the Operations Plan, existing fill is being excavated to a maximum depth of 120 feet. Compliance landfill material includes clean soil, brick, rock, asphaltic material, and concrete. Excavated materials will be screened for noncompliant materials. Any noncompliant materials, including but not limited to hazardous wastes, organics, and asbestos, will be segregated and disposed of at a legal place off-site. Inert materials will be processed and compacted in the landfill.

### 4.4.3.2 LAND USE

Currently, a majority of the project site is undergoing an active reclamation. As depicted in Figure 3-3, with the exception of the northern portion and SCE easement of the project site, the entire project site is disturbed by the former land uses and reclamation operation. Vehicles enter and exit the site at a gated driveway in the northern portion of the project site at Live Oak Lane. A temporary office trailer is staged near the Live Oak Lane entrance. Temporary movable structures (portable toilets, sunshades, etc.) are installed throughout the project site. Employee parking areas will move based on operational locations but are generally near the Live Oak Lane entrance. There are two vacant, one-story metal buildings on the north end of the project site. An existing retention basin covers the SCE easement on the western portion of the project site. Pole-mounted overhead power lines also run along the northern and southern project site boundary. Ornamental trees grow along the project site's frontage with Live Oak Avenue and the eastern portion of Live Oak Lane.

As discussed in Section 3.3.1.1, site reclamation will cover approximately 80 percent of the project site. The Operations Plan is currently underway and will be completed prior to implementation of the Specific Plan. The rough graded site per the Operations Plan serves as the baseline conditions for implementation of the Specific Plan. This phase is not a part of the proposed project and is not analyzed in this Draft EIR. Final elevation of the project site is estimated to match the adjacent grade. The metal structures on the site will be removed, and the SCE easement will remain undeveloped.

## 4.4.4 Local Planning Considerations

### 4.4.4.1 GENERAL PLAN

The City of Irwindale's General Plan Land Use Element designates the entire project site Regional Commercial (RC) (Irwindale 2020). The RC designation is designed to encourage a balanced mix of commercial, office professional, and light manufacturing uses along a number of high-visibility traffic corridors.

### 4.4.4.2 ZONING

Under the Irwindale Zoning Code, or Title 17 of the Irwindale Municipal Code, the entire project site is zoned M-2 (Heavy Manufacturing) (Irwindale 2022).

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### 4.4.5 Environmental Resources and Infrastructure

#### 4.4.5.1 AESTHETIC RESOURCES

Land uses surrounding the project site include industrial and commercial development. The San Gabriel Mountains, further north of the project site, have dramatic, sloping terrain that provides a natural scenic backdrop for Los Angeles County and San Bernardino County and can also be seen from the project site.

Under existing conditions (February 2023), the majority of the project site is actively being modified pursuant to the approved Operations Plan. Figure 4-1, *Photographs of Existing Conditions*, shows grading operations, remaining buildings, and the on-site retention basin under SCE power lines. There are two vacant, one-story metal buildings on the north end of the project site which will be removed as part of the remediation activities. Pole-mounted overhead power lines also run along the northern and southern project site boundary. Ornamental trees grow along the project site's frontage with Live Oak Avenue and the eastern portion of Live Oak Lane and will not be removed. The project site is visible from the surrounding roadways, including Live Oak Avenue, which abuts the southern project site boundary; Arrow Highway, which abuts the northern project site boundary; and the I-605, which abuts the western project site boundary.

Please refer to Section 5.1, *Aesthetics*, for additional information concerning regulations governing scenic quality, light and glare, and an analysis of the project-related impacts.

#### 4.4.5.2 AIR QUALITY AND CLIMATE

The project site is within the SoCAB, which is governed by South Coast AQMD. The climate in the SoCAB is mild and tempered by cool ocean breezes. The climatological station nearest to the project site that best represents the climatological conditions in the proposed project's area is the Monrovia-Los Angeles Basin, Station 159. The average minimum temperature is reported at approximately 45 degrees Fahrenheit (°F) in December and the average maximum temperature is approximately 78 °F in September (CIMIS 2023). Precipitation is typically 24 inches annually. Annual average relative humidity is approximately 58 percent.

Between 2019 and early 2023, California experienced drought conditions that led Governor Gavin Newsom to proclaim a state of emergency. The drought conditions led to extended months of high temperatures with little to no precipitation throughout the SoCAB. Governor Newsom issued several Executive Orders addressing drought, including N-10-21, which calls for a 15 percent voluntary statewide reduction in water use levels through voluntary actions such as reducing landscape irrigation and finding and fixing leaks (California Governor 2021). After unprecedented rain and snowfall throughout California in the first few months of 2023, in March 2023, the governor rolled back some drought emergency provisions, including the voluntary 15 percent water conservation target, while maintaining other measures that support regions and communities still facing water supply challenges and that continue building up long-term water resilience, such as prohibitions on wasteful practices like watering ornamental grass on commercial properties (California Governor 2023).

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Figure 4-1 - Photographs of Existing Conditions



Photo 1: View of site entrance from Live Oak Lane on north side of the project site.



Photo 2: Existing vacant metal buildings on northwest portion of the project site.



Photo 3: Southwest facing view of the retention basin on the west portion of the project site.



Photo 4: Northwest facing view of current remedial grading operations.

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## 4. Environmental Setting

The SoCAB is designated nonattainment for O<sub>3</sub>, PM<sub>2.5</sub>, and lead (Los Angeles County only) under the California and National AAQS and nonattainment for PM<sub>10</sub> and nitrogen dioxide (NO<sub>2</sub>) under the California AAQS. Additional information regarding air quality and climate change regulations affecting Irwindale is provided in Section 4.2.2, *Regional Planning Considerations*, above.

The California Communities Environmental Health Screening Tool (CalEnviroScreen) is a mapping tool developed by the California Office of Environmental Health Hazard Assessment that helps identify California communities that are most affected by many sources of pollution, and where people are especially vulnerable to pollution's effects. CalEnviroScreen uses environmental, health, and socioeconomic information, or indicators, to produce scores for every census tract in the state. Overall scores are calculated from the scores for two groups of indicators: pollution burden and population characteristics. Pollution burden scores represent the potential exposures to pollutants and the adverse environmental conditions caused by pollution (OEHHA 2021). As shown on Figure 4-2, *Pollution Burden Score Map*, the pollution burden score for the project site and surrounding areas exceeds the 75 percent threshold used to define disadvantaged communities. Although land uses immediately surrounding the project site are primarily industrial and commercial, sensitive residential receptors are east of the San Gabriel River. And though the nearest residences are 2,000 feet to the southeast, they, along with the project site, are in an identified disadvantaged community under SB 535. The project site is also within 1,000 feet of the Kare Youth League Irwindale sports and recreation facility to the north across Arrow Highway.

Project impacts on climate and air quality conditions in the city are analyzed in Sections 5.2, *Air Quality*, and 5.7, *Greenhouse Gas Emissions*, of this DEIR.

### 4.4.5.3 GEOLOGY AND LANDFORM

The project site is in the central San Gabriel Valley, just west of the San Gabriel River. The valley is bordered by the San Gabriel Mountains on the north, the San Jose Hills to the east, the Puente Hills on the south, and the San Rafael and Repetto Hills on the west. The valley sediment consists primarily of fans shed southward from the San Gabriel Mountains, and to a lesser degree from the other nearby ranges. Coarser materials are contained in broad fans below larger mountain drainages and in channels defined along the major drainages, including the San Gabriel and Rio Hondo channels.

The project site is characterized as a gentle, south-southwest sloping alluvial fan that emanates from San Gabriel Canyon. The alluvial fan consists of sand and gravel deposits that have been historically mined for construction aggregate. The depositional source has been blocked by the Santa Fe Flood Control Basin.

Under the approved Operations Plan, a majority of the project site is currently being excavated to approximately 120 feet below finished grade. Processed and recompacted inert material would include clean soil, brick, rock, asphaltic material, and concrete. Asphalt-containing materials are placed 318 feet above mean sea level, which is the highest anticipated groundwater level. Rubble is processed and stripped of steel prior to placement as engineered fill; the steel will be recycled off-site. A licensed geologist conducts monitoring of implementation of the approved Operations Plan to observe and document the contents and characteristics of the fill and ensure that the fill is properly compacted.

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Southern California is a seismically active region and there are multiple faults in the vicinity of the project site. Based on the active and potentially active faults in the region, the project site could be subjected to substantial ground shaking in the event of an earthquake. This hazard is common to Southern California and is not unique to the project site. The inert materials being placed in the landfill are engineered and layered to provide stable conditions in anticipation of future development.

Additional information regarding the project site's geology and its project-related impacts are provided in Section 5.5, *Geology and Soils*.

### 4.4.5.4 HAZARDS AND HAZARDOUS MATERIALS

Under the approved Operations Plan, the project site is currently being excavated to a maximum depth of approximately 120 feet below finished grade and recompact with processed inert fill. The fill material would consist of clean soil, brick, rock, asphaltic material, and concrete. Excavated materials are spread out and inspected for noncompliant materials. Any noncompliant materials, including but not limited to hazardous wastes, organics, and asbestos, are segregated and disposed of at a legal place off-site. There are no activities on the property that involve the transport, use, storage, generation, or disposal of hazardous materials, except for minor quantities of flammable fuels in the fuel tanks of the trucks and fill-handling machinery on the project site. There are no underground storage tanks on-site. Landfill gases are not generated by an inert debris landfill. In the event excavated conditions reveal the potential presence of landfill gas, adequate monitoring and provisions will be put in place with the oversight of the geologist.

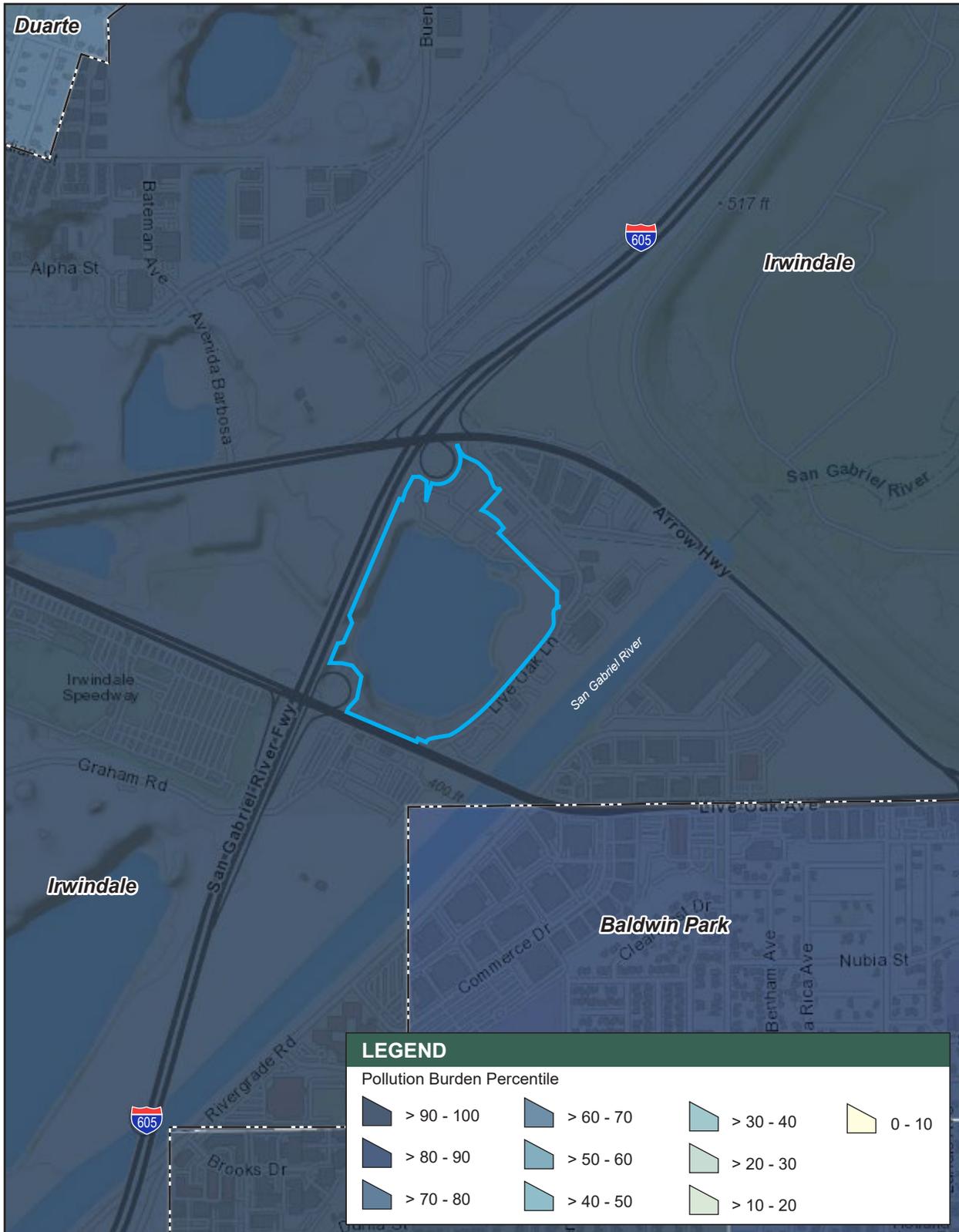
Additional information regarding the proposed project's impacts on hazards and hazardous materials are provided in Section 5.7, *Hazards and Hazardous Materials*.

### 4.4.5.5 HYDROLOGY AND WATER QUALITY

The City of Irwindale is within the San Gabriel Valley Basin (Basin). The Basin includes the entire valley floor of the San Gabriel Valley except for the Raymond Basin and Puente Basin. The boundaries of the Basin are the Raymond Basin on the northwest, the base of the San Gabriel Mountains on the north, the groundwater divide between San Dimas and La Verne and the lower boundary of the Puente Basin on the east, and Whittier Narrows on the southwest. The Basin is a large groundwater basin replenished by stream runoff from the adjacent mountains and hills, by rainfall directly on the surface of the valley floor, subsurface inflow from Raymond Basin and Puente Basin, and by return flow from water applied for overlying uses. Additionally, the Basin is replenished with imported water. The Basin serves as a natural storage reservoir, transmission system, and filtering medium for wells constructed therein. The project site is approximately 500 feet west of the San Gabriel River. The San Gabriel River and its tributary, the Rio Hondo, drain an area of about 490 square miles upstream of Whittier Narrows (Stetson 2023).

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Figure 4-2 - Pollution Burden Score Map



Project Site Boundary  
 City Boundary

0 350  
Scale (Feet)



Source: CalEnviroScreen 4.0, 2023.

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## 4. Environmental Setting

The project site is currently being excavated and recompacted under the approved Operations Plan, and a majority of the project site is generally lower in elevation than the adjacent areas. The project site is currently mostly pervious with an impervious asphalt layer in several locations of the project site. The overall drainage flows north toward I-605. The project site is served by the Valley County Water District and is part of the Upper Baldwin Park Pressure Zone. There is a 12-inch line in Live Oak Lane and Arrow Highway near the project site that ultimately discharges to Los Angeles Flood Control District–owned facilities. Additionally, groundwater at the project site generally exceeds 200 feet below ground surface. Groundwater monitoring and reporting is being conducted during remedial grading operations, as required by the Regional Water Quality Control Board Waste Discharge Requirements, Order No. 91-016.

Refer to Section 5.8, *Hydrology and Water Quality*, for additional information regarding hydrological conditions and an analysis of project impacts on hydrology and water quality.

### 4.4.5.6 NOISE

Other than the temporary noise generated by site reclamation activities, the primary source of noise in the project site's vicinity is vehicle noise from the arterial roadway and highway network (primarily the I-605, Arrow Highway, and Live Oak Avenue) as well as stationary-source noise associated with surrounding existing industrial and commercial uses.

Refer to Section 5.11, *Noise*, for additional information concerning the noise environment and an analysis of the proposed project's noise impacts.

### 4.4.5.7 PUBLIC SERVICES

#### Fire Services

The City contracts fire and emergency medical services with the Los Angeles County Fire Department (LACFD). Station 29 is the nearest LACFD station to the project site, approximately 1.9 miles southeast of the project site at 14334 Los Angeles Street in the City of Baldwin Park.

#### Police Services

Police protection services to the project site are provided by the Irwindale Police Department (IPD). The IPD provides police services throughout the city from its headquarters at 5050 North Irwindale Avenue, in the city of Irwindale.

#### School Services

Public school students in Irwindale are served by seven school districts, the Azusa Unified School District (AUSD), Baldwin Park Unified School District (BPUSD), Covina-Valley Unified School District (CVUSD), Duarte Unified School District (DUSD), El Monte Union High/City School District (EMUHSD/EMCSD), Monrovia Unified School District (MUSD), and the West Covina Unified School District (WCUSD). The nearest schools are Olive Middle School, approximately 0.5 miles south of the project site; Walnut Academy,

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approximately 0.6 miles from the project site; and Margaret Heath Elementary School, approximately 0.8 miles southeast of the project site.

### Library Services

Public library services are provided by the Irwindale Public Library, which is owned and operated by the City of Irwindale and is approximately 3 miles east of the project site.

### Parks and Recreation

The closest park facility is the Santa Fe Recreational Area, approximately a mile northeast of the project site. The Santa Fe Recreational Area is a county park in the Santa Fe Flood Control Dam that offers a variety of amenities and programs, including walking, bicycling, and equestrian trails; picnic areas; lakes; and seasonal water recreation including swimming, fishing, and boating. The nearest recreation facilities are the San Gabriel River Trail and Kare Youth League recreational facility, which are approximately 300 feet east and 430 feet north of the project site, respectively. The San Gabriel River Trail runs through the recreational area (LACDPR 2023).

Refer to Section 5.12, *Public Services*, for additional information concerning public services. An analysis of project-related impacts is also provided in each section.

#### 4.4.5.8 UTILITIES AND SERVICE SYSTEMS

##### Water

The project site is served by the Valley County Water District and is part of the Upper Baldwin Park Pressure Zone. There is a 12-inch water main line in Arrow Highway near the project site. There are also several existing fire hydrants with shut-off valves on the line.

##### Stormwater

Numerous existing storm drain culverts are located along the segment of Arrow Highway that fronts the northern boundary of the project site; they are connected to an existing 36-inch public storm drain owned and operated by the City of Irwindale. Additionally, the City owns and operates several storm drain culverts along the segment of Live Oak Avenue that fronts the southern boundary of the project site; these culverts are connected to an existing public storm drain in Live Oak Avenue that ranges in diameter from 24 inches to 60 inches.

##### Wastewater

Existing sewer infrastructure in the area consists of a 10-inch sewer line along Live Oak Avenue and a 15-inch sewer line along Commerce Drive and Center Street on the east side of the project site. These sewer lines are designed to drain south to the main trunk line on Ramona Parkway, conveying the sewer load from the existing commercial/industrial developments on the northeast corner of Live Oak Avenue and Rivergrade Road and the commercial/industrial development on the north side of Rivergrade Road. Wastewater from the main trunk line on Ramona Parkway is then ultimately conveyed to and treated by wastewater treatment facilities operated

## 4. Environmental Setting

by the Los Angeles County Sanitation District (LACSD). The 10-inch sewer line on Live Oak Avenue is under the jurisdiction of Irwindale, and the 15-inch sewer line on Commerce Drive and Center Street is under the jurisdiction of Baldwin Park.

Under existing conditions with the ongoing Operations Plan, the project site does not generate domestic wastewater and does not transmit any wastewater to City or LACSD facilities. On-site portable toilets are provided near active operations.

### **Solid Waste**

The City of Irwindale contracts solid waste collection services through Athens Services. Solid waste is hauled to and disposed at Azusa Land Reclamation Landfill, Simi Valley Landfill, and El Sobrante Landfill. Azusa Land Reclamation Landfill, Simi Valley Landfill, and El Sobrante Landfill are operated by Waste Management Inc.

### **Dry Utilities**

Southern California Edison provides electricity services to the project site, and Southern California Gas Company provides natural gas services to the site.

Section 5.15, *Utilities and Service Systems*, provides additional info regarding existing utilities conditions. An analysis of project-related impacts is also provided.

### **4.4.5.9 TRANSPORTATION AND TRAFFIC**

Major regional travel routes in the vicinity of the project site include the I-605 bordering the western boundary of the project site, the I-210 approximately 1.5 miles to the north, and the I-10 approximately 2.7 miles south. All three of these interstates are part of regional trade corridors for goods movement in the Southern California region. Direct vehicular access to the project site is from Arrow Highway and Live Oak Avenue, which connect to the I-605 to the northwest and southwest, respectively. Arrow Highway and Live Oak Avenue are designated as truck routes by the City of Irwindale. Live Oak Lane, which abuts the eastern portion of the project site, is currently a private collector road that would be improved to a public street and deeded to the City.

Public transit in the City of Irwindale is provided by Foothill Transit. Foothill Transit operates bus services in the vicinity of the project site via Foothill Transit Route 492 along Live Oak Avenue/Arrow Highway and Route 272 along Buena Vista Street, Avenida Barbosa, and Arrow Highway. The closest bus stops to the project site are to the east along Rivergrade Road via Route 272 and southeast along Live Oak Avenue via Routes 492 and 272.

Pedestrian sidewalks exist along either side of the segments of Arrow Highway that abut the northern boundary of the project site. There are no bike lanes along the project site's frontage with Arrow Highway. There are no paved sidewalks or bike lanes along the project site's frontage with Live Oak Avenue.

Refer to Section 5.13, *Transportation and Traffic*, for additional information concerning existing transportation facilities and traffic conditions and an analysis of project-related impacts.

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### 4.5 ASSUMPTIONS REGARDING CUMULATIVE IMPACTS

Section 15130 of the CEQA Guidelines states that cumulative impacts shall be discussed where they are significant. It further states that this discussion shall reflect the level and severity of the impact and the likelihood of occurrence, but not in as great a level of detail as that necessary for the project alone. Section 15355 of the Guidelines defines cumulative impacts to be “...two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” Cumulative impacts represent the change caused by the incremental impact of a project when added to other proposed or committed projects in the vicinity.

The CEQA Guidelines (Section 15130 [b][1]) state that the information utilized in an analysis of cumulative impacts should come from one of two sources:

- A. A list of past, present and probable future projects producing related cumulative impacts, including, if necessary, those projects outside the control of the agency.
- B. A summary of projections contained in an adopted General Plan or related planning document designed to evaluate regional or area-wide conditions.

The cumulative impact analysis in this EIR uses both methods, described more specifically in each cumulative impact section. The geographic area in which cumulative impacts are considered varies between sections in Chapter 5, *Environmental Analysis*, of this EIR, and is identified, as applicable, in the *Cumulative Impacts* subsection of each section of Chapter 5. For instance, for utilities and service systems, the area considered is the service area of each utility provider. The geographic scope of air quality is the South Coast Air Basin, which is the air basin where the project site is located.

Table 4-1, *City of Irwindale Approved and Pending Projects Within Two Miles of the Proposed Project*, shows approved and pending projects in the City of Irwindale within a two-mile radius of the proposed project. Figure 4-3, *City of Irwindale Cumulative Projects Within Two Miles of the Proposed Project*, gives a graphical representation of the project locations. A two-mile radius is considered a reasonable distance for which future projects may have a cumulative impact when considered in conjunction with the proposed project.

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**Table 4-1 City of Irwindale Approved and Pending Projects Within Two Miles of the Proposed Project**

ID	Project	Land Uses	Size
<b>CITY OF IRWINDALE – Approved projects</b>			
IRA2	The Park @ Live Oak Specific Plan	Industrial Park/Logistics/Commercial Retail	78.3 AC
IRA4	13131 Los Angeles Street	Concrete tilt-up building; future tenants not yet identified	528,710 SF
IRA5	2200 Arrow Highway – Materials Recovery Facility and Transfer Station	Materials Recovery Facility and Transfer Station, Convenience Store/Gas station	17.22 AC
<b>CITY OF IRWINDALE – Pending projects</b>			
IRP1	500 Speedway Drive – Speedway Commerce Center Specific Plan	Industrial/Commercial/Business Park	63.3 AC
IRP2	14005 Live Oak Avenue	Industrial	5.13 AC
IRP3	15801 First Street – Irwindale Brew Yard Specific Plan	Brewery/Industrial	225 AC
IRP4	15715 Arrow Highway	Industrial	4.9 AC
<b>CITY OF IRWINDALE – Under Construction</b>			
IRA3	City of Hope Campus Plan	Medical	116 AC
Source: Irwindale 2023. Notes: SF = square feet; AC = acres			

In addition to the projects shown in Table 4-1, potential cumulative impacts due to new projects beyond the city boundary have also been addressed in the traffic impact analysis (TIA). A list of related projects in surrounding jurisdictions is provided in Table 4-2, *Cumulative Projects Within Two Miles of the Proposed Project in Surrounding Jurisdictions*. The location of these projects is shown on Figure 4-4, *Cumulative Projects Within Two Miles of the Proposed Project in Surrounding Jurisdictions*.

**Table 4-2 Cumulative Projects Within Two Miles of the Proposed Project in Surrounding Jurisdictions**

ID	Project	Land Uses	Jurisdiction	Size/Quantity
DU1	Duarte Station Specific Plan	Residential, office, hotel	City of Duarte	19 AC
DU2	Saltbox	Warehouse, logistics	City of Duarte	58,000 SF
DU3	Multiple-Family Development, 16 Units	Mixed-use residential, commercial	City of Duarte	16 DU
DU4	Multi-Family Development, 20 Units	Multi-family residential	City of Duarte	20 DU
DU5	Northeast corner of Huntington Drive and Buena Vista Street (former Sparr Liquor Site)	Prospective	City of Duarte	9,500 SF
DU6	Town Center Specific Plan	Retail, residential, hotel	City of Duarte	75 AC
DU7	Westminster Gardens Specific Plan	Residential, senior living, recreational, office	City of Duarte	5.95 AC
DU8	BP Electric Vehicle Charging Station	Electric vehicle charging station	City of Duarte	N/A
DU9	Route 66 Car Wash	Car wash	City of Duarte	N/A
MR1	Arroyo at Monrovia Station Specific Plan	Mixed-use residential	City of Monrovia	324 DU

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**Table 4-2 Cumulative Projects Within Two Miles of the Proposed Project in Surrounding Jurisdictions**

ID	Project	Land Uses	Jurisdiction	Size/Quantity
MR2	127 Pomona Specific Plan	Mixed-use residential, commercial	City of Monrovia	232 DU
MR3	Station Square South Specific Plan	Multi-family residential	City of Monrovia	296 DU
BP1	Downtown Transit Oriented Development Specific Plan	Residential, commercial, public	City of Baldwin Park	115 AC
SW1	Jeffries Tank and Plant Improvements Project	Water utility	State Water Resources Control Board, in City of Monrovia	N/A
CN1	Emerald Necklace Monrovia Unified School District Natural Infrastructure Project	Landscaping improvements	California Natural Resources Agency, in City of Monrovia	N/A
VC1	VCWD HQ Demonstration Garden Project	Garden	Valley County Water District, in City of Baldwin Park	16,000 SF

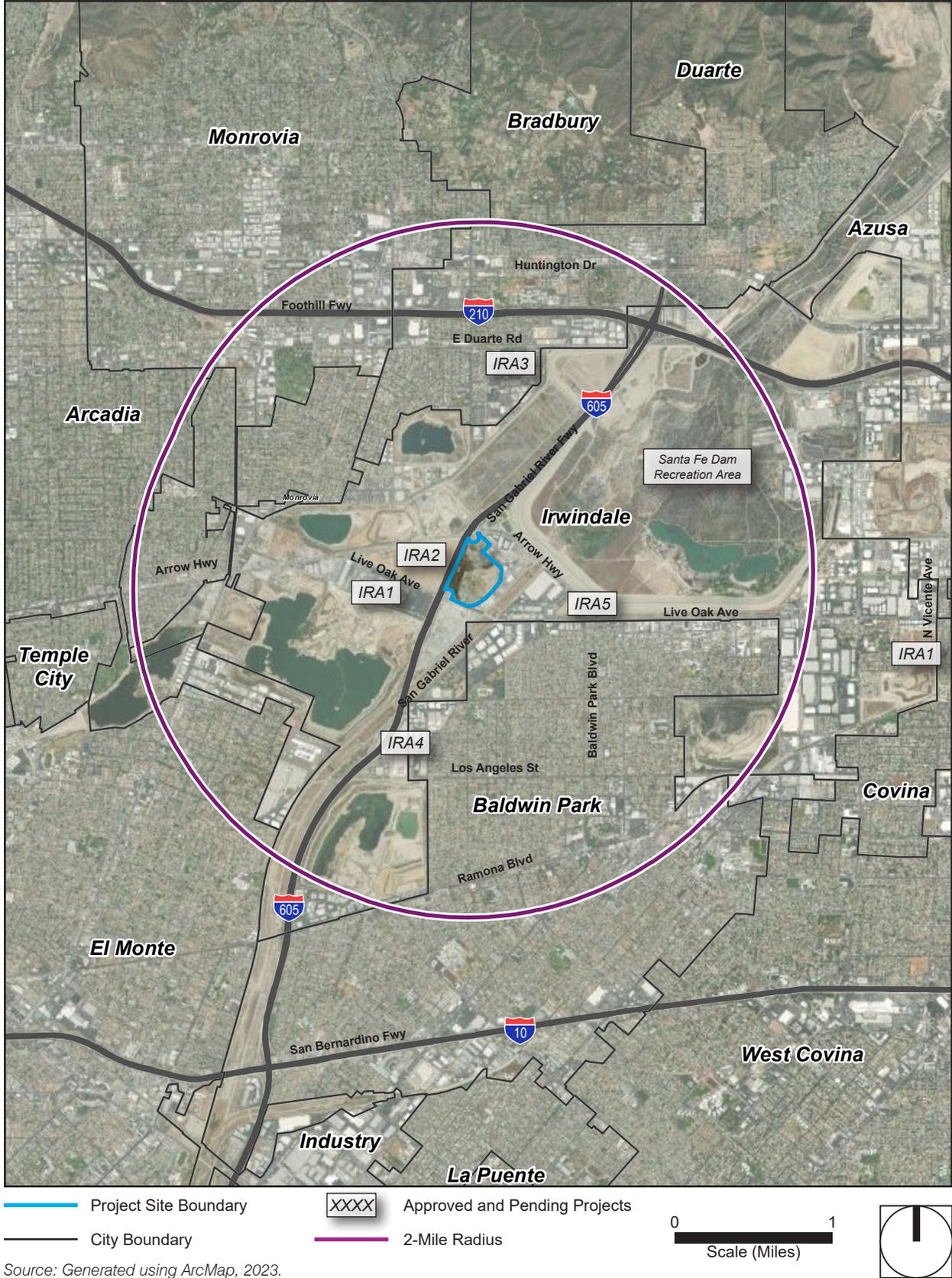
AC = acres  
SF = square feet  
DU = dwelling units

Following is a summary of the approach and extent of cumulative impacts, which are further detailed in each topical environmental section:

- **Aesthetics.** Cumulative impacts consider the potential for the project and related projects to impact scenic resources in Irwindale, including scenic viewsheds and landforms, open space, and assessment of area-wide vistas.
- **Air Quality.** Air quality impacts are both regional impacts and localized impacts. For cumulative impacts, the analysis is based on the regional boundaries of the South Coast Air Basin.
- **Cultural Resources.** Cumulative impacts consider the potential for the proposed project in conjunction with related development projects to result in compounded impacts on cultural resources in the area within a one-half-mile radius for historical, archaeological, and paleontological resources.
- **Energy.** The scope of cumulative impacts for energy resources is the service area of Southern California Edison and Southern California Gas.
- **Geology and Soils.** Geologic and soils impacts are site specific and generally do not combine to result in cumulative impacts.
- **Greenhouse Gas (GHG) Emissions.** GHG emissions impacts are not site-specific impacts but cumulative impacts. Therefore, the cumulative analysis in this DEIR analyzes the project's cumulative contribution to GHG emissions impact.

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Figure 4-3 - City of Irwindale Cumulative Projects Within Two Miles of the Proposed Project

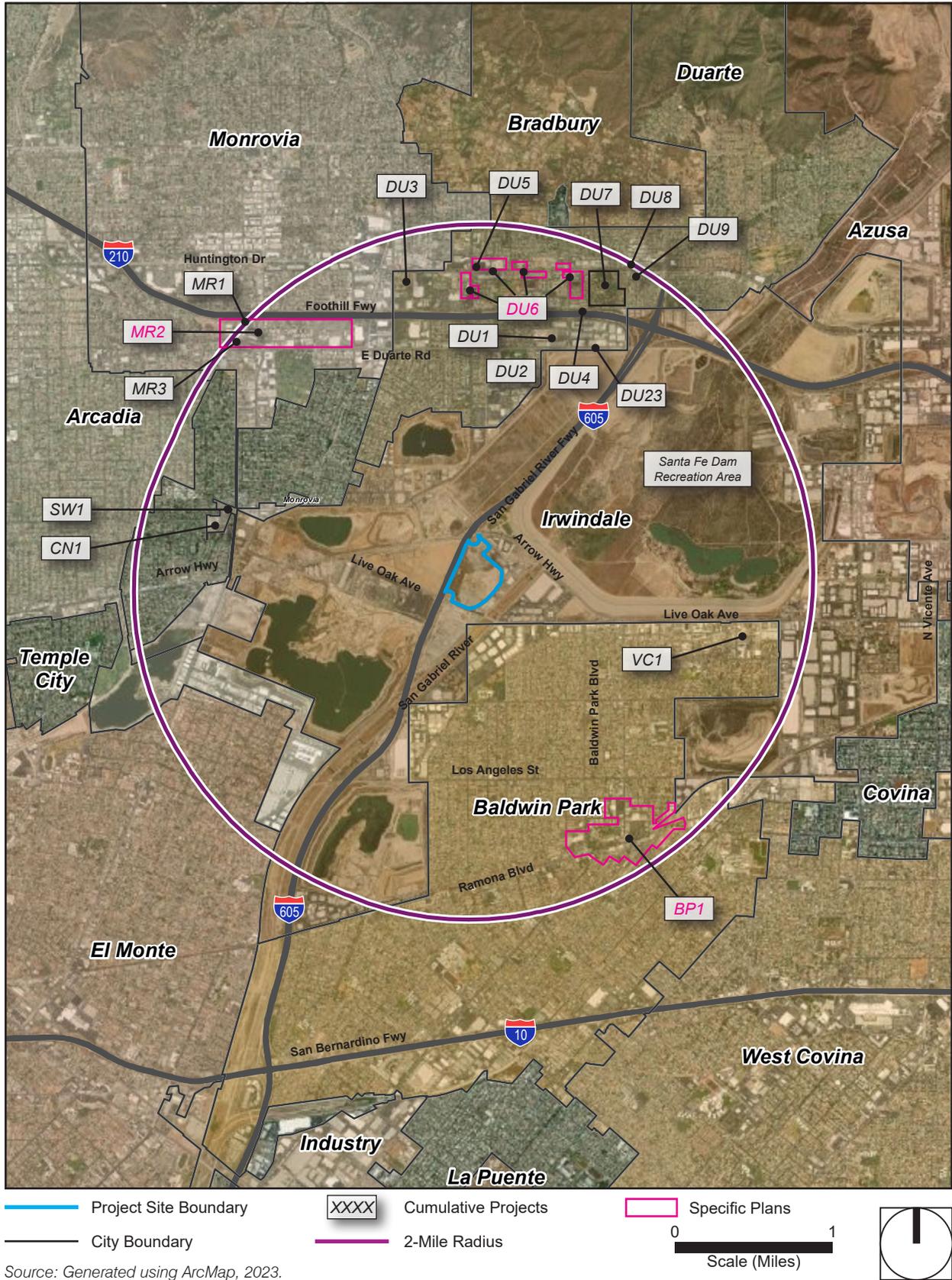


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Figure 4-4 - Cumulative Projects within Two Miles of the Proposed Project in Surrounding Jurisdictions



Source: Generated using ArcMap, 2023.

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- **Hazards and Hazardous Materials.** The cumulative impact for hazards and hazardous materials is based on the Los Angeles County Fire Department Health Hazard Materials Division's (HHMD) service area. The HHMD is the Certified Unified Program Agency (CUPA) for the City of Irwindale.
- **Hydrology and Water Quality.** Cumulative hydrological impacts are based on the boundaries of the San Gabriel Valley Basin, and runoff impacts are based on the Valley County Water District's service area.
- **Land Use and Planning.** Cumulative impacts are based on jurisdictional boundaries and related plans, including the City of Irwindale General Plan, regional land use plans, and SCAG's RTP/SCS.
- **Mineral Resources.** Cumulative mineral resources impacts are based on the San Gabriel Valley Production-Consumption (P-C) Region. P-C regions were selected such that the majority (95 percent) of the construction aggregate produced in the region is consumed in the region.
- **Noise.** Cumulative noise impacts are based on the traffic study, which considers the regional growth based on citywide and regional projections.
- **Public Services.** Cumulative impacts are based on potential related development within each service provider's boundaries—CAL FIRE and Los Angeles County Fire Department.
- **Transportation and Traffic.** The vehicle miles traveled (VMT) methodology utilized the San Gabriel Valley Council of Governments (SGVCOG) web-based VMT Evaluation Tool based on VMT data from the SCAG Travel Demand Model. SGVCOG worked with member agencies, including the City of Irwindale, to analyze traffic conditions in the region to develop the baseline standard for this tool. Multimodal transportation related cumulative impacts are reviewed in accordance with the City's General Plan and consistency with the RTP/SCS.
- **Tribal Cultural Resources.** Cumulative impacts related to tribal cultural resources are based on the local Native American tribes' culturally significant areas and include, but are not limited to, cultural landscapes and regions, specific heritage sites, and other tribal cultural places.
- **Utilities and Service Systems.** Cumulative impacts related to water supply and distribution systems and wastewater conveyance and treatment would be contiguous with the Valley County Water District's service area. Cumulative impacts related to stormwater drainage would be contiguous with San Gabriel Valley Basin hydrologic units. Solid waste collection services would be contiguous with the Athens Services service area, and landfill services would be contiguous with this provider's service area. Cumulative impacts to natural gas and electricity services would be contiguous with the Southern California Gas Company and Southern California Edison service areas, respectively.

Please refer to Chapter 5, *Environmental Analysis*, of this DEIR for a discussion of the cumulative impacts for each environmental resource area.

## 4. Environmental Setting

### 4.6 REFERENCES

- California Air Resources Board (CARB). 2008, October. Climate Change Proposed Scoping Plan: A Framework for Change.
- . 2010, August. Proposed Regional Greenhouse Gas Emission Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375. Staff Report.
- . 2018, February. Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets. [https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375\\_Updated\\_Final\\_Target\\_Staff\\_Report\\_2018.pdf](https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375_Updated_Final_Target_Staff_Report_2018.pdf).
- California Governor. 2021, July 8. As Drought Conditions Intensify, Governor Newsom Calls on Californians to Take Simple Actions to Conserve Water. <https://www.gov.ca.gov/2021/07/08/as-drought-conditions-intensify-governor-newsom-calls-on-californians-to-take-simple-actions-to-conserve-water/>.
- . 2023, March 24. Governor Newsom Eases Drought Restrictions. <https://www.gov.ca.gov/2023/03/24/governor-newsom-eases-drought-restrictions/>
- California Irrigation Management System (CIMIS). 2023, March 30. CIMIS Monthly Report.
- California Office of Environmental Health Hazard Assessment (OEHHA). 2021, October. CalEnviroScreen. <https://oehha.ca.gov/media/downloads/calenviroscreen/report/calenviroscreen40reportf2021.pdf>.
- California Public Utilities Commission (CPUC). 2024, January 17 (accessed). Energy Storage. <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/energy-storage>.
- Irwindale, City of. 2020. <https://www.irwindaleca.gov/DocumentCenter/View/38/General-Plan?bidId=>.
- . 2022, March 18. Irwindale Municipal Code. [https://library.municode.com/ca/irwindale/codes/code\\_of\\_ordinances](https://library.municode.com/ca/irwindale/codes/code_of_ordinances).
- Los Angeles County Department of Parks and Recreation (LACDPR). 2023, April 13 (accessed). Santa Fe Dam Recreational Area. <https://parks.lacounty.gov/santa-fe-dam-recreational-area/>.
- Southern California Association of Governments (SCAG). 2020, September 3. Connect SoCal. [https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plan\\_0.pdf?1606001176](https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plan_0.pdf?1606001176).
- Stetson Engineers Inc. (Stetson). 2023, March. Water Supply Assessment, Irwindale Gateway Project, Irwindale, California (Appendix M3).

## 5. Environmental Analysis

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Chapter 5 examines the environmental setting of the proposed project, analyzes its effects and the significance of its impacts, and recommends mitigation measures to reduce or avoid impacts. This chapter has a separate section for each environmental issue area that was determined to need further study in the EIR. This scope was determined in the notice of preparation (NOP), which was published on February 10, 2023 (see Appendix A1), and through public and agency comments received during the NOP comment period from February 10, 2023, to March 11, 2023 (see Appendix A2). Environmental issues and their corresponding sections are:

- 5.1: Aesthetics
- 5.2: Air Quality
- 5.3: Cultural Resources
- 5.4: Energy
- 5.5: Geology and Soils
- 5.6: Greenhouse Gas Emissions
- 5.7: Hazards and Hazardous Materials
- 5.8: Hydrology and Water Quality
- 5.9: Land Use Planning
- 5.10: Mineral Resources
- 5.11: Noise
- 5.12: Public Services
- 5.13: Transportation
- 5.14: Tribal Cultural Resources
- 5.15: Utilities and Service Systems

Sections 5.1 through 5.15 provide a detailed discussion of the environmental setting, impacts associated with the proposed project, and mitigation measures designed to reduce significant impacts where required and when feasible. The residual impacts following the implementation of any mitigation measure are also discussed.

The initial study also determined that certain issues under an environmental topic would not be significantly affected by implementation of the project; these issues are not discussed further in this EIR.

## 5. Environmental Analysis

### Organization of Environmental Analysis

To assist the reader with comparing information between environmental issues, each section is organized under nine major headings:

- Environmental Setting
- Thresholds of Significance
- Applicable Irwindale Gateway Specific Plan Development Standards and Design Conditions
- Environmental Impacts
- Cumulative Impacts
- Level of Significance Before Mitigation
- Mitigation Measures
- Level of Significance After Mitigation
- References

In addition, Chapter 1, *Executive Summary*, has a table that summarizes all impacts by environmental issue.

### Terminology Used in This Draft EIR

The level of significance is identified for each impact in this DEIR. Although the criteria for determining significance are different for each topic area, the environmental analysis applies a uniform classification of the impacts based on definitions consistent with CEQA and the CEQA Guidelines:

- **No impact.** The project would not change the environment.
- **Less than significant.** The project would not cause any substantial, adverse change in the environment.
- **Less than significant with mitigation incorporated.** The EIR includes mitigation measures that avoid substantial adverse impacts on the environment.
- **Significant and unavoidable.** The project would cause a substantial adverse effect on the environment, and no feasible mitigation measures are available to reduce the impact to a less than significant level.

## 5. Environmental Analysis

### 5.1 AESTHETICS

This section of the Draft Environmental Impact Report (DEIR) describes the existing landform and aesthetic character of the project site and surrounding area and describes views of the project site from surrounding areas. It also analyzes the potential aesthetic and visual impacts resulting from implementation of the Irwindale Gateway Specific Plan (proposed project).

#### 5.1.1 Environmental Setting

##### 5.1.1.1 REGULATORY AND PLANNING FRAMEWORK

###### State

###### *Caltrans Scenic Highway Program*

The state laws governing this program are in the Streets and Highways Code, Sections 260 to 26484, and Caltrans oversees the program. Caltrans defines a scenic highway as any freeway, highway, road, or other public right-of-way that traverses an area of exceptional scenic quality. Suitability for designation as a State Scenic Highway is based on three criteria:

- **Vividness.** The extent to which the landscape is memorable. This is associated with the distinctiveness, diversity, and contrast of visual elements.
- **Intactness.** The integrity of visual order and the extent to which the natural landscape is free from visual intrusions (e.g., buildings, structures, equipment, grading).
- **Unity.** The extent to which development is sensitive to and visually harmonious with the natural landscape. (Caltrans 2008)

###### Local

###### *City of Irwindale Municipal Code*

Provisions of the Irwindale Municipal Code applicable to the project site and pertaining to aesthetics include, but are not limited to the following:

- **Site Plan and Design Review (Chapter 17.70).** This chapter establishes that no person shall construct any building or structure or make structural and physical improvements, additions, extensions and/or exterior alterations, and no permit shall be issued for such construction until the site plan and design has been submitted to, reviewed by, and approved by the City of Irwindale. The property may only be developed, used, and maintained in accordance with the approved site plan and design review and the commercial and industrial design guidelines. Section 17.70.050 also includes Site Plan and Design Review Criteria, which address lighting and its potential impact on adjacent lands (Irwindale 2022).

## 5. Environmental Analysis

### AESTHETICS

#### *City of Irwindale Commercial and Industrial Design Guidelines*

The purpose of the City of Irwindale Commercial and Industrial Design Guidelines is to ensure the successful integration of commercial and industrial projects with the goal of contributing to an aesthetically and functionally cohesive community. These guidelines form the basis and criteria for the evaluation of plans and specifications submitted for review and approval to the City of Irwindale. Developers are required to follow all provisions of these guidelines as applicable to their specific project. In addition to the provisions of these guidelines, all regulations, requirements, standards, specifications, of the City of Irwindale also apply and take precedence over the guidelines (Irwindale 2009).

#### 5.1.1.2 EXISTING CONDITIONS

##### Visual Character and Resources

Under existing conditions, the project site's appearance and topographic characteristics are under constant modification due to the ongoing remedial grading activities under the approved Operations Plan. As shown on Figure 3-3, *Aerial Photograph*, the appearance of the project site is predominantly characterized by one pit on the landfill parcel of the project site that is currently being excavated. Additional structures that remain on-site include two vacant one-story metal buildings on the north end of the project site. Man-made berms exist along the western and eastern boundaries of the project site. An existing retention basin covers a majority of the easement on the western portion of the project site, which contains many shrubs and grasses. Pole-mounted overhead power lines run along the northern and southern project site boundaries, and power lines run along the western project site boundary mounted on electrical towers, two each on the north and south ends of the easement (one electrical tower on the south end is beyond the project site boundary). Two dual-faced (one static and one digital) billboards are on the western project site boundary and adjacent to I-605, and a third is on the northwest end of the project site; all three billboards are visible from I-605. Ornamental trees grow along the project site's frontage with Live Oak Avenue and the eastern portion of Live Oak Lane. A chain-link fence borders the western, northern, and eastern project site boundaries, and a five-foot-tall block wall borders the southern project site boundary.

Prior to grading activities, the project site had a large variation in ground elevation—from approximately 370 feet above mean sea level (amsl) at the southwest portion of the retention basin to approximately 440 feet amsl. As of February 2023 (the date of publication of the NOP for this proposed project), elevations at the northern parcel of the project site are approximately 420 feet amsl. The pit at the landfill parcel will be excavated to a maximum depth of 120 feet below finished grade at the central portion of the pit.

The berm along the western edge of the project site mostly obscures views of the interior portions of the project site from I-605, which abuts the project site to the west. The northern parcel is visible from Arrow Highway, which abuts the northern portion of the project site, with the metal buildings partially obscuring views of the interior of the project site from the north. A majority of the project site is visible from Live Oak Lane, which abuts the northern portion of the project site, but is obscured by the berm along the eastern portion of the project site from Live Oak Lane. A majority of the project site is visible from Live Oak Avenue to the south.

## 5. Environmental Analysis AESTHETICS

Surrounding land uses include light industrial and commercial uses to the north (adjacent to the project site) and east across from and along Live Oak Lane; a Southern California Edison substation (Rio Hondo) to the south across Live Oak Avenue; and an industrial business park (currently under construction) for the Live Oak Specific Plan to the west across I-605. Further north across Arrow Highway are aggregate mining uses, the Kare Youth League sports and recreation facility, and the Santa Fe Flood Control Basin. Further east past the industrial and commercial business are the San Gabriel River and San Gabriel River Trail (see Figure 3-3).

### Landform

The San Gabriel Mountains are roughly 3.3 miles north of the project site and rise to an elevation of approximately 10,000 feet amsl. Views of the San Gabriel Mountains are mostly visible from the project site and from the parts of Arrow Highway, Live Oak Lane, Live Oak Avenue, and I-605 that abut the project site (see Figure 4-1). These views of the San Gabriel Mountains are partially and intermittently blocked by existing man-made structures and/or tree lines surrounding the project site. Additionally, the Puente Hills are approximately eight miles south of the project site. Partially distant views of the Puente Hills are available looking south from various viewpoints on the project site and from the segments of Arrow Highway and Live Oak Lane that abut the northern project site boundary. These views are partially obstructed by the metal buildings and pole-mounted power lines on the north part of the project site, existing industrial uses east of the project site, and distant tree lines and power lines in the south.

The San Gabriel River is approximately 500 feet east of the project site. The river sits at or below its surrounding topography and is not visible from the project site or from the segments of Live Oak Avenue or Arrow Highway that abut the project site.

### Scenic Vistas and Corridors

According to the Irwindale General Plan (2020), there are no scenic corridors or vistas in Irwindale.

### Light and Glare

Under existing conditions, the project site does not contain any structures or other permanent sources of light and/or glare. Existing sources of light and/or glare at the project site are limited to daytime operation of construction equipment associated with ongoing remedial grading operations at the project site.

### 5.1.2 Thresholds of Significance

Pursuant to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- AE-1 Have a substantial adverse effect on a scenic vista.
- AE-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

## 5. Environmental Analysis

### AESTHETICS

- AE-3 In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality.
- AE-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

### 5.1.3 Applicable Specific Plan Development Standards and Design Guidelines

#### 5.1.3.1 DEVELOPMENT STANDARDS

Development standards are detailed in Chapter 6 of the Irwindale Gateway Specific Plan. Tables 6-2 and 6-3, Development Standards, describes site requirements, including lot size, setbacks, building heights, and parking and height requirements. Sections 6.4.1 and 6.5.1, Other Development Standards, of the Specific Plan details additional standards that would inform the aesthetic character of the proposed project. For example, several standards aim to obscure and mask the visibility of BESS equipment, including by screening such equipment with walls or landscaping when in proximity to the surrounding streets and using screening materials compatible with the design and architecture of the building. The development standards would also require the use of low-reflective, neutral colors for metal structures and high-voltage line-support poles.

#### 5.1.3.2 DESIGN GUIDELINES

Chapter 7 of the Irwindale Gateway Specific Plan provides design guidelines to “establish the quality and character of the built environment for the master-planned development.” This chapter of the Specific Plan addresses: site planning, building architecture (including form, materials, windows/doors), and landscape architecture (including palette, entry statements, and streetscape treatment). The design guidelines encourage diverse building designs while promoting consistency among all buildings to maintain visual cohesiveness. The design guidelines also emphasize the importance of the design of building façades that face view corridors of the surrounding streets, noting that such façades should be visually appealing and offer an inviting design to passing pedestrians and motorists. Buffering and screening for truck yards and loading/storage areas and exterior mechanical equipment is also a key point in the guidelines.

### 5.1.4 Environmental Impacts

#### 5.1.4.1 METHODOLOGY

##### **Aesthetic/Visual Character Analysis**

The assessment of aesthetic impacts is subjective by nature. Aesthetics generally refer to the identification of visual resources, the quality of what can be seen, and an overall visual perception of the environment. This analysis attempts to identify and objectively examine factors that contribute to the perception of aesthetic impacts. Potential aesthetic impacts can be evaluated by considering proposed building setbacks, scale, massing, typical construction materials, and landscaping features of the proposed project. The Irwindale Zoning Code includes a variety of provisions related to development standards for residential and nonresidential

## 5. Environmental Analysis

### AESTHETICS

development (i.e., building height limits, setbacks, landscaping, lighting and signage). However, there are no locally designated or defined standards or methodologies for the assessment of aesthetic impacts. Conceptual plans and perspectives of the Irwindale Gateway Specific Plan are included to help examine the aesthetic compatibility of the conceptual plans with the surrounding area and potential impacts to visual resources and viewers in the project area.

#### Light and Glare Analysis

Nighttime illumination and glare analysis address the effects of a project's exterior lighting upon adjoining uses and areas. Light and glare impacts are determined by comparing the existing light sources with the proposed lighting plan or policies. If the project has the potential to generate spill light on adjacent sensitive receptors or generate glare for receptors in the vicinity of the site, mitigation measures can be provided to reduce potential impacts, as necessary.

#### 5.1.4.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance regarding aesthetics.

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**Impact 5.1-1: The proposed project would not have a substantial adverse effect on a scenic vista. [Threshold AE-1]**

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Development of the proposed Irwindale Gateway Specific Plan would involve site clearing and construction of new industrial buildings under Options 1 and 2 and an additional BESS under Option 2.

As further described in Chapter 3, *Project Description*, the proposed project would encompass approximately 67 acres and would include light industrial uses. Under both development options, industrial uses may include, but are not limited to, fulfillment centers, e-commerce centers, general warehousing and distribution, and manufacturing facilities. Trailer, truck, and/or car parking areas are also proposed throughout the project site.

The two development options of the proposed project are as follows:

- **Option 1:** 3 industrial buildings totaling 997,796 square feet
- **Option 2:** 2 industrial buildings totaling 704,070 square feet and a 16-acre BESS on the southern portion of the project site

#### Option 1

Development projects have the potential to impact scenic vistas in two ways. Development could physically alter a designated scenic resource (for example, disturb or develop upon a ridgeline, hillside, peak, or shoreline), or could block or substantially obscure the public view of a scenic vista (for example, designated scenic views from public roads, trails, parks, landmarks, and other public viewing points). Views from private properties are not a legal right or protected government interest, so views from private properties are not considered viewing points for the purposes of this analysis.

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According to the General Plan and General Plan Update EIR, the City of Irwindale has no designated scenic vistas. Landforms with potential scenic vistas include the San Gabriel Mountains roughly three miles north of the project site and Puente Hills approximately eight miles south of the project site. Under existing conditions, public views of the San Gabriel Mountains are available from various viewpoints on the project site and the portions of Arrow Highway, Live Oak Lane, Live Oak Avenue, and the I-605 that abut the project site. The mountains rise to an elevation of approximately 10,000 feet amsl. For the purposes of this EIR, the San Gabriel Mountains are considered a scenic vista. Views of the San Gabriel Mountains are partially and intermittently obscured from view by existing man-made structures and/or tree lines surrounding the project site. Similarly, partial distant views of the Puente Hills are available looking south from various viewpoints on the project site and the segments of Arrow Highway and Live Oak Lane that abut the northern project site boundary. These views are partially obstructed by the metal buildings and pole-mounted power lines on the north portion of the project site, existing industrial uses east of the project site, and distant tree lines and power lines in the south.

The San Gabriel River is approximately 500 feet east of the project site. The river sits at or below its surrounding topography; therefore, views of the river are blocked or highly limited from any distance, so the San Gabriel River is not considered a scenic vista. Also, the river is not visible from the project site or from the segments of Live Oak Avenue, Live Oak Lane, or Arrow Highway that abut the project site. Accordingly, the proposed project has no potential to block public views of the San Gabriel River due to the lack of public views of the river available from the site and surrounding areas.

Implementation of the proposed project under Option 1 would result in the development of the project site with three industrial buildings that would reach a maximum height of 60 feet above finished grade. Therefore, implementation of the proposed project under Option 1 could potentially partially and intermittently obstruct existing views of the San Gabriel Mountains and Puente Hills from surrounding roadways that abut the project site. However, the maximum building heights would not result in obstruction of, or substantially detract from, public views of these landforms because the landforms are at a much greater height and elevation, rising up from approximately 1,400 to 10,000 feet amsl in elevation. Additionally, public views of the San Gabriel Mountains from Arrow Highway would not be affected by the proposed project because views of the mountain range from Arrow Highway are primarily available looking to the north, whereas the project site is to the south of Arrow Highway. Under Option 1, the proposed project would not have a substantial adverse effect on the public views of the San Gabriel Mountains or the Puente Hills. Accordingly, impacts would be less than significant.

#### **Option 2**

The proposed project under Option 2 has no potential to block public views of the San Gabriel Mountains. Implementation of the proposed project under Option 2 would include structures reaching a maximum height of 65 feet above finished grade, with the tallest of these structures being the BESS substation. Option 2 would result in less building area and development of a BESS. The BESS batteries and inverters would be in purpose-built containers/enclosures that would only be about 10 feet high and would not block views. Option 2 would also include tie-lines supported by steel poles up to 150 feet high as needed that would not block views. The poles would be galvanized steel or finished with another low-reflective neutral colored surfacing when visible

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from Arrow Highway, Live Oak Avenue, or Live Oak Lane. Therefore, implementation of the proposed project would not result in obstruction of, or substantially detract from, public views of the San Gabriel Mountains or Puente Hills because the landforms are at a much greater height and elevation. Under Option 2, the proposed project would not have a substantial adverse effect on the public views of the San Gabriel Mountains or the Puente Hills. Accordingly, impacts would be less than significant.

*Level of Significance Before Mitigation:* Impacts would be less than significant.

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**Impact 5.1-2: The proposed project would not alter scenic resources within a state scenic highway. [Threshold AE-2]**

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### Option 1

According to the California Department of Transportation Scenic Highway System Map, there are no state scenic highways in or near the City of Irwindale (Caltrans 2023). The closest officially designated state scenic highway to the project site is the segment of State Route 2 (SR-2) between SR-138 and Interstate 210 (I-210), located approximately 11.7 miles north of the project site. The nearest eligible state scenic highway to the project site is the segment of SR-39 between I-210 and SR-2 approximately 3.8 miles east of the project site. Additionally, according to the Irwindale General Plan, there are no scenic corridors near the project site. Due to the distance as well as the intervening development, landscaping, and topography, the proposed project's development features would not be visible from the segments of SR-2 and SR-39 that are considered designated/eligible state scenic highways. Further, the proposed project under Option 1 would not affect any trees, outcroppings, or historic buildings visible within a state scenic highway. Thus, under Option 1, no impact would occur to scenic resources within a state scenic highway or a City-designated scenic corridor.

### Option 2

The proposed project under Option 2 would have the same impacts on Threshold AE-2 as Option 1.

*Level of Significance Before Mitigation:* The proposed project would cause no impact.

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**Impact 5.1-3: The proposed project is within an urbanized area and would not conflict with applicable zoning and other regulations governing scenic quality. [Threshold AE-3]**

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### Option 1

As further described in Section 5.1.3, *Applicable Specific Plan Development Standards and Design Guidelines*, the proposed Specific Plan includes development standards for industrial buildings that provide the regulatory framework for the project site. General development standards related to design theme, building form, materials, colors, textures, windows, doors, signage, landscaping, fences and screening, and functional elements (loading doors, mechanical equipment, trash enclosures, etc.) are also provided in the Specific Plan to ensure cohesive development of the entire project site. Further, design guidelines in the Specific Plan provide a framework for future development to maintain high quality and complementary design; create a functional and

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sustainable place; and establish themes or standards for building design and materials, landscaping, and site design.

The intent of the design guidelines is to encourage visually interesting buildings that complement the surrounding uses while providing opportunities for economic activity. Figure 5.1-1, *Conceptual Specific Plan Images*, illustrates examples of proper design, building materials, colors, and architectural features that can be envisioned for the proposed industrial buildings. The design guidelines encourage diverse building designs while maintaining consistency among all buildings to promote visual cohesiveness. Maintaining consistency within architectural styles based on the Specific Plan's design guidelines would visually unify, define the character, and establish an appropriate, cohesive aesthetic for buildings in the Specific Plan area.

Additionally, given the industrial nature of the proposed project, buffering and screening are important design features to screen truck yards and loading/storage areas and exterior mechanical equipment. Pursuant to the requirements of the Specific Plan, any manufacturing and processing activities would only be conducted within a wholly enclosed four-sided building, and outdoor loading/storage and truck parking areas would be screened from public view along Live Oak Avenue and Arrow Highway by walls, fencing, landscaping, and/or other screening features or barriers such as berms. Moreover, ground- and roof-mounted exterior mechanical equipment, heating and ventilation, air conditioning, tanks, and other mechanical devices would be screened and treated with a neutral color or obscured by landscaping from Live Oak Avenue, Arrow Highway, and Live Oak Lane.

The Specific Plan's conceptual landscape plan focuses on landscaping along entry treatments and public roadways, softening hardscapes and buildings, and enhancing the overall character of the industrial and business parks (see Figures 3-12 and 3-13). For example, the proposed design features a fountain at Live Oak Lane and Live Oak Avenue that would distinguish the entry of the development and a monument sign fronting Live Oak Avenue across from Graham Avenue that provide identification on the south end of the Plan Area. Thematic landscaping design (i.e., heights, accents, and patterns) can further define the visual character of the project site, emphasize focal points, provide shade, and add visual interest. For example, parking lot landscaping can help reduce heat buildup, improve aesthetics, and enhance pedestrian paths connecting the parking lot to the industrial and business buildings. The proposed project would incorporate a drought-tolerant plant palette, which would include colorful shrubs and groundcovers, ornamental grasses and succulents, evergreen and deciduous trees, and species native to or naturalized for Southern California.

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**Figure 5.1-1 - Conceptual Specific Plan Images**



Photo 1. Conceptual signage style for entry treatment locations.



Photo 2. Conceptual design theme for the Specific Plan.



Photo 3. Conceptual accent building materials, colors, and textures desired for building entries.



Photo 4. Conceptual image for the Battery Energy Storage System.

Source: Photos 1-3: Kearny, 2022; Photo 4: AYP, 2022.

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The project site has a long history of industrial activity as a sand and gravel quarry, inert landfill, and vacant lot for storage and stockpiling uses; the project site is currently undergoing remedial grading operations. Development in accordance with the Specific Plan would substantially change the visual character of the current site conditions. However, development standards and design guidelines detailed in the Specific Plan would ensure that the project site is developed in a coordinated manner with compatible land uses and cohesive design. Therefore, the proposed project would not degrade the project site compared to its existing conditions and would instead remediate and redevelop the currently underutilized site with more economically viable developments. As discussed throughout this EIR, the proposed project includes a Zone Change to change the existing zoning designation applicable to the project site from M-2 (Heavy Manufacturing) to Irwindale Gateway Specific Plan. The application of the Irwindale Gateway Specific Plan Zone would allow for the proposed project to be developed in accordance with Chapter 4, Development Standards, of the Irwindale Gateway Specific Plan, which would constitute the zoning regulations applicable to any future development within the project site. The City's approval and implementation of the proposed Zone Change would ensure the proposed project would be consistent with the proposed zoning regulations (including those which govern scenic quality) as identified in Chapter 4, Development Standards, of the Irwindale Gateway Specific Plan. Additionally, the project site would be developed in accordance with the design guidelines established in Chapter 5 of the Irwindale Gateway Specific Plan, which include comprehensive architectural and landscape standards and development criteria that provide for an attractive, contemporary industrial and commercial business park. As such, the proposed project would be consistent with the applicable City of Irwindale General Plan policies governing scenic quality, which include Community Development Element Policies 12 and 13. Furthermore, future implementation of development projects within the Irwindale Gateway Specific Plan would be subject to an administrative site plan and design review pursuant to Specific Plan Chapter 6, Implementation Plan. Compliance with the mandatory site plan and design review process would ensure that future implementing development projects under the Irwindale Gateway Specific Plan comply with the development standards and design guidelines in the Irwindale Gateway Specific Plan and would preclude the potential for implementation of the proposed project to result in negative impacts to visual quality and public views. Under Option 1, the proposed project would not conflict with the Specific Plan development requirements, and impacts would be less than significant.

### Option 2

The proposed project under Option 2 would be developed in accordance with the same development standards and design guidelines as Option 1. Development standards for the proposed BESS are further described in Section 5.1.3, *Applicable Specific Plan Development Standards and Design Guidelines*. Like Option 1, development standards and design guidelines under Option 2 would ensure that the project site is developed in a coordinated manner with compatible land uses and cohesive design. BESS facilities within sight of Live Oak Avenue or Live Oak Avenue would be screened with eight-foot walls, and the ground surfaces of the facilities would be covered with gravel, asphalt, concrete, or other compatible materials. BESS related equipment and facilities would also be required to comply with the design guidelines for landscaping, walls and fences, and lighting, as described above for Option 1. Therefore, the proposed project would not degrade the project site compared to its existing conditions and would instead remediate and redevelop the currently underutilized site with more economically viable developments. The proposed project under Option 2 would not conflict with Specific Plan development requirements, and impacts would be less than significant.

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*Level of Significance Before Mitigation:* Impacts would be less than significant.

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#### **Impact 5.1-4: The proposed project would not generate additional light and glare. [Threshold AE-4]**

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##### **Option 1**

Under existing conditions, the project site contains minimal sources of artificial light. With implementation of the proposed project under Option 1, artificial lighting would be introduced to provide nighttime illumination for the warehouse buildings, internal streets, and sidewalks. Lighting would also be used to enhance security and safety for pedestrians and vehicles within the Specific Plan area. Types of lighting would include, but not be limited to, street lighting, parking lot and pedestrian lighting, landscape lighting, building monument lighting, and security lighting.

Chapter 7, Design Guidelines, of the Specific Plan includes requirements for exterior lighting, such as inclusion of lighting cut-off devices, low-mounted fixtures, and downward-directed lighting fixtures, that are intended to prevent glare and spillover of light to public streets and adjacent properties (see Section 5.1.3, *Applicable Specific Plan Development Standards and Design Guidelines*, for pertinent design guidelines). The design guidelines limit exterior lighting to a maximum initial illuminance of no greater than 0.5 horizontal and vertical foot-candles at the site boundary and beyond. Development of the proposed project under Option 1 would be required to adhere to the outdoor lighting standards in the Specific Plan. Thus, compliance with the Specific Plan requirements would ensure that the proposed project would not produce amounts of light or glare from artificial lights that could adversely affect day or nighttime views and would preclude substantial light spill on adjacent properties.

With respect to glare impacts that could result from reflective building materials, the proposed project would include exterior building surfaces consisting of concrete (including tilt-up concrete walls), stucco, and similar materials that do not include any physical properties that would produce substantial amounts of glare. Storefronts, curtain wall areas, trim, and accents would include the potential use of metal and glass, which would result in minimal levels of glare. Glass in windows of the proposed warehouse buildings would be limited to “clear or colored glass with medium to high performance glazing, and “silver mirrored glass is prohibited” (Kearny 2023, p. 46). Accordingly, the use of the glazing treatments specified by the Specific Plan would not adversely affect daytime views of any surrounding properties because the glass windows would not be highly reflective. Accordingly, a less than significant glare impact would occur.

Compliance with the development standards and design guidelines in the Specific Plan would ensure new sources of light and glare do not adversely affect day or nighttime views in the project area. As shown on Figure 3-6, *Option 1 Site Plan*, the proposed buildings are mostly set back from adjacent roadways, which would help in reducing project-related light spilling onto neighboring uses. No substantial light sources would be installed on-site, and most lighting would be similar to that of neighboring industrial uses. Thus, overall light and glare impacts associated with both development options of the proposed project would be less than significant.

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#### Option 2

Implementation of the proposed project under Option 2 would introduce artificial lighting to provide nighttime illumination for the warehouse buildings, BESS, internal streets, and sidewalks. The proposed project under Option 2 would comply to the same design guidelines for lighting and building materials as for Option 1 as well as those for the BESS. Compliance with the development standards and design guidelines in the Specific Plan would ensure new sources of light and glare do not adversely affect day or nighttime views in the project area. Similar to Option 1, as shown on Figure 3-7, *Option 2 Site Plan*, the proposed warehouse buildings and BESS under Option 2 are mostly set back from adjacent roadways, which would help in reducing project-related light spilling onto neighboring uses. Lighting would be similar to that of neighboring industrial uses. Thus, overall light and glare impacts associated with both development options of the proposed project would be less than significant.

*Level of Significance Before Mitigation:* Impacts would be less than significant.

#### 5.1.5 Cumulative Impacts

##### Option 1

The cumulative setting for visual impacts includes potential future development under the Irwindale Gateway Specific Plan combined with effects of development on lands proximate to the plan area. Aesthetic impacts are generally localized to a project site and its immediate surroundings. The Irwindale Gateway Specific Plan combined with other development projects in the surrounding area would not substantially alter the visual character of the area surrounding the plan area. Similarly, light and glare impacts are localized, and development in the plan area is not expected to add significantly to the creation of nighttime light and glare outside of the plan area. Implementation of the proposed project would have a less than significant impact on aesthetics in the city. Therefore, impacts of the proposed project would not be cumulatively considerable.

##### Option 2

The proposed project under Option 2 would have the same cumulative impacts as those for Option 1.

#### 5.1.6 Level of Significance Before Mitigation

##### Option 1

Impacts AE-1, AE-2, AE-3, and AE-4 would be less than significant.

##### Option 2

Impacts AE-1, AE-2, AE-3, and AE-4 would be less than significant.

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#### 5.1.7 Mitigation Measures

##### Option 1

No mitigation measures are required.

##### Option 2

No mitigation measures are required.

#### 5.1.8 Level of Significance After Mitigation

##### Option 1

Impacts would be less than significant.

##### Option 2

Impacts would be less than significant.

#### 5.1.9 References

California Department of Transportation (Caltrans). 2008, October. *Scenic Highway Guidelines*. Landscape Architecture Program, Division of Design.

———. 2023, April 19 (accessed). California State Scenic Highway System. <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>.

Irwindale, City of. 2009, January 14. City of Irwindale Commercial and Industrial Design Guidelines. <https://www.irwindaleca.gov/DocumentCenter/View/39/Commercial-and-Industrial-Design-Guidelines?bidId=>.

———. 2020. City of Irwindale 2020 General Plan.

———. 2022, March 18. Code of Ordinances. [https://library.municode.com/ca/irwindale/codes/code\\_of\\_ordinances](https://library.municode.com/ca/irwindale/codes/code_of_ordinances).

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### 5.2 AIR QUALITY

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for the Irwindale Gateway (proposed project) to impact air quality in a local and regional context. This evaluation is based on the methodology recommended by the South Coast Air Quality Management District (South Coast AQMD). The analysis focuses on air pollution from regional emissions and localized pollutant concentrations. In this section, “emissions” refers to the actual quantity of pollutant, measured in pounds per day (lbs./day), and “concentrations” refers to the amount of pollutant material per volumetric unit of air. Concentrations are measured in parts per million, parts per billion, or micrograms per cubic meter.

Criteria air pollutant emissions modeling is included in Appendix D1, *Air Quality and Greenhouse Gas Emissions Data*, of this DEIR. Transportation-sector impacts are based on trip generation and vehicle miles traveled as provided by Iteris (see Appendix L1). Cumulative impacts related to air quality are based on the regional boundaries of the South Coast Air Basin (SoCAB). An evaluation of localized construction and operational health risks is in Appendix D2, *Health Risk Assessment*, of this DEIR.

During the Notice of Preparation (NOP) public review period, comments regarding health risk and air quality during construction of the proposed project were received from several citizens, the Department of Justice and South Coast AQMD. These comments have been addressed below by the analysis. The NOP and all scoping comment letters are included as Appendices A1 and A2 of this document.

#### 5.2.1 Environmental Setting

##### 5.2.1.1 AIR POLLUTANTS OF CONCERN

###### Criteria Air Pollutants and Known Health Effects

The pollutants emitted into the ambient air by stationary and mobile sources are categorized as primary and/or secondary pollutants. Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), coarse inhalable particulate matter (PM<sub>10</sub>), fine inhalable particulate matter (PM<sub>2.5</sub>), and lead (Pb) are primary air pollutants. Of these, CO, SO<sub>2</sub>, nitrogen dioxide (NO<sub>2</sub>), PM<sub>10</sub>, and PM<sub>2.5</sub> are “criteria air pollutants,” which means that ambient air quality standards (AAQS) have been established for them. VOC and NO<sub>x</sub> are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O<sub>3</sub>) and NO<sub>2</sub> are the principal secondary pollutants.

Each of the primary and secondary criteria air pollutants and its known health effects are described below.

- **Carbon Monoxide (CO)** is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion, engines and motor vehicles operating at slow speeds are the primary source of CO in the SoCAB. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse

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health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (South Coast AQMD 2005; US EPA 2023a). The SoCAB is designated as being in attainment under the California AAQS and attainment (serious maintenance) under the National AAQS (CARB 2023a).

- **Volatile Organic Compounds (VOC)** are composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of VOCs. Other sources include evaporative emissions from paints and solvents, asphalt paving, and household consumer products such as aerosols (South Coast AQMD 2005). There are no AAQS for VOCs. However, because they contribute to the formation of O<sub>3</sub>, South Coast AQMD has established a significance threshold (South Coast AQMD 2019). The health effects for ozone are described later in this section.
- **Nitrogen Oxides (NO<sub>x</sub>)** are a by-product of fuel combustion and contribute to the formation of ground-level O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The two major forms of NO<sub>x</sub> are nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. The principal form of NO<sub>x</sub> produced by combustion is NO, but NO reacts quickly with oxygen to form NO<sub>2</sub>, creating the mixture of NO and NO<sub>2</sub> commonly called NO<sub>x</sub>. NO<sub>2</sub> is an acute irritant and more injurious than NO in equal concentrations. At atmospheric concentrations, however, NO<sub>2</sub> is only potentially irritating. NO<sub>2</sub> absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO<sub>2</sub> exposure concentrations near roadways are of particular concern for susceptible individuals, including asthmatics, children, and the elderly. Current scientific evidence links short-term NO<sub>2</sub> exposures, ranging from 30 minutes to 24 hours, with adverse respiratory effects, including airway inflammation in healthy people and increased respiratory symptoms in people with asthma. Also, studies show a connection between elevated short-term NO<sub>2</sub> concentrations and increased visits to emergency departments and hospital admissions for respiratory issues, especially asthma (South Coast AQMD 2005; USEPA 2023a). The SoCAB is designated in attainment (maintenance) under the National AAQS and attainment under the California AAQS (CARB 2023a).
- **Sulfur Dioxide (SO<sub>2</sub>)** is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and chemical processes at plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO<sub>2</sub>. When sulfur dioxide forms sulfates (SO<sub>4</sub>) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO<sub>x</sub>). Thus, SO<sub>2</sub> is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO<sub>2</sub> may irritate the upper respiratory tract. Current scientific evidence links short-term exposures to SO<sub>2</sub>, ranging from 5 minutes to 24 hours, with an array of adverse respiratory effects, including bronchoconstriction and increased asthma symptoms. These effects are particularly adverse for asthmatics at elevated ventilation rates (e.g., while exercising or playing) at lower concentrations and when combined with particulates, SO<sub>2</sub> may do greater harm by injuring lung tissue. Studies also show a connection between short-term exposure and increased visits to emergency facilities and hospital admissions for respiratory illnesses, particularly in at-risk populations such as children, the elderly, and asthmatics (South Coast AQMD 2005; US EPA 2023a). The SoCAB is designated as attainment under the California and National AAQS (CARB 2023a).

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- **Suspended Particulate Matter (PM<sub>10</sub> and PM<sub>2.5</sub>)** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM<sub>10</sub>, include particulate matter with an aerodynamic diameter of 10 microns or less (i.e., ≤0.01 millimeter). Inhalable fine particles, or PM<sub>2.5</sub>, have an aerodynamic diameter of 2.5 microns or less (i.e., ≤0.0025 millimeter). Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. Both PM<sub>10</sub> and PM<sub>2.5</sub> may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems. The US Environmental Protection Agency's (EPA) scientific review concluded that PM<sub>2.5</sub>, which penetrates deeply into the lungs, is more likely than PM<sub>10</sub> to contribute to health effects and at far lower concentrations. These health effects include premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms (e.g., irritation of the airways, coughing, or difficulty breathing) (South Coast AQMD 2005). There has been emerging evidence that ultrafine particulates, which are even smaller particulates with an aerodynamic diameter of <0.1 microns or less (i.e., ≤0.0001 millimeter) have human health implications because their toxic components may initiate or facilitate biological processes that may lead to adverse effects to the heart, lungs, and other organs (South Coast AQMD 2013). However, the EPA and the California Air Resources Board (CARB) have not adopted AAQS to regulate these particulates. Diesel particulate matter is classified by CARB as a carcinogen (CARB 2023e). Particulate matter can also cause environmental effects such as visibility impairment,<sup>1</sup> environmental damage,<sup>2</sup> and aesthetic damage<sup>3</sup> (South Coast AQMD 2005; US EPA 2023a). The SoCAB is a nonattainment area for PM<sub>2.5</sub> under California and National AAQS and a nonattainment area for PM<sub>10</sub> under the California AAQS (CARB 2023a).<sup>4</sup>
- **Ozone (O<sub>3</sub>)** is a key ingredient of “smog” and is a gas that is formed when VOCs and NO<sub>x</sub>, both by-products of internal combustion engine exhaust, undergo photochemical reactions in sunlight. O<sub>3</sub> is a secondary criteria air pollutant. O<sub>3</sub> concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for its formation. O<sub>3</sub> poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Breathing O<sub>3</sub> can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level O<sub>3</sub> also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. O<sub>3</sub> also affects sensitive vegetation and ecosystems, including forests, parks, wildlife refuges, and wilderness areas. In particular, O<sub>3</sub> harms sensitive vegetation during the growing season (South Coast AQMD 2005; US EPA

<sup>1</sup> PM<sub>2.5</sub> is the main cause of reduced visibility (haze) in parts of the United States.

<sup>2</sup> Particulate matter can be carried over long distances by wind and then settle on ground or water, making lakes and streams acidic; changing the nutrient balance in coastal waters and large river basins; depleting the nutrients in soil; damaging sensitive forests and farm crops; and affecting the diversity of ecosystems.

<sup>3</sup> Particulate matter can stain and damage stone and other materials, including culturally important objects such as statues and monuments.

<sup>4</sup> CARB approved the South Coast AQMD's request to redesignate the SoCAB from serious nonattainment for PM<sub>10</sub> to attainment for PM<sub>10</sub> under the National AAQS on March 25, 2010, because the SoCAB did not violate federal 24-hour PM<sub>10</sub> standards from 2004 to 2007. The EPA approved the State of California's request to redesignate the South Coast PM<sub>10</sub> nonattainment area to attainment of the PM<sub>10</sub> National AAQS, effective on July 26, 2013.

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2023a). The SoCAB is designated extreme nonattainment under the California AAQS (1-hour and 8-hour) and National AAQS (8-hour) (CARB 2023a).

**Lead (Pb)** is a metal found naturally in the environment as well as in manufactured products. Once taken into the body, lead distributes throughout the body in the blood and accumulates in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of the blood. The effects of lead most commonly encountered in current populations are neurological effects in children and cardiovascular effects in adults (e.g., high blood pressure and heart disease). Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ (South Coast AQMD 2005; USEPA 2018). The major sources of lead emissions have historically been mobile and industrial sources. As a result of the EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. However, in 2008 the EPA and CARB adopted more strict lead standards, and special monitoring sites immediately downwind of lead sources recorded very localized violations of the new state and federal standards.<sup>5</sup> As a result of these violations, the Los Angeles County portion of the SoCAB is designated as nonattainment under the National AAQS for lead (South Coast AQMD 2012; CARB 2023a). However, lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011 (South Coast AQMD 2012). CARB's State Implementation Plan (SIP) revision was submitted to the EPA for approval. Table 5.2-1, *Criteria Air Pollutant Health Effects Summary*, summarizes the potential health effects associated with the criteria air pollutants.

**Table 5.2-1 Criteria Air Pollutant Health Effects Summary**

Pollutant	Health Effects	Examples of Sources
Carbon Monoxide (CO)	<ul style="list-style-type: none"> <li>• Chest pain in heart patients</li> <li>• Headaches, nausea</li> <li>• Reduced mental alertness</li> <li>• Death at very high levels</li> </ul>	Any source that burns fuel such as cars, trucks, construction and farming equipment, and residential heaters and stoves
Ozone (O <sub>3</sub> )	<ul style="list-style-type: none"> <li>• Cough, chest tightness</li> <li>• Difficulty taking a deep breath</li> <li>• Worsened asthma symptoms</li> <li>• Lung inflammation</li> </ul>	Atmospheric reaction of organic gases with nitrogen oxides in sunlight
Nitrogen Dioxide (NO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• Increased response to allergens</li> <li>• Aggravation of respiratory illness</li> </ul>	Same as carbon monoxide sources

<sup>5</sup> Source-oriented monitors record concentrations of lead at lead-related industrial facilities in the SoCAB, which include Exide Technologies in the City of Commerce; Quemetco, Inc., in the City of Industry; Trojan Battery Company in Santa Fe Springs; and Exide Technologies in Vernon. Monitoring conducted between 2004 through 2007 showed that the Trojan Battery Company and Exide Technologies exceed the federal standards (South Coast AQMD 2012).

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**Table 5.2-1 Criteria Air Pollutant Health Effects Summary**

Pollutant	Health Effects	Examples of Sources
Particulate Matter (PM <sub>10</sub> and PM <sub>2.5</sub> )	<ul style="list-style-type: none"> <li>• Hospitalizations for worsened heart diseases</li> <li>• Emergency room visits for asthma</li> <li>• Premature death</li> </ul>	Cars and trucks (particularly diesels) Fireplaces and woodstoves Windblown dust from overlays, agriculture, and construction
Sulfur Dioxide (SO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• Aggravation of respiratory disease (e.g., asthma and emphysema)</li> <li>• Reduced lung function</li> </ul>	Combustion of sulfur-containing fossil fuels, smelting of sulfur-bearing metal ores, and industrial processes
Lead (Pb)	<ul style="list-style-type: none"> <li>• Behavioral and learning disabilities in children</li> <li>• Nervous system impairment</li> </ul>	Mobile and industrial source emissions

Source: CARB 2023b.

**Toxic Air Contaminants**

CARB has identified other air pollutants as toxic air contaminants (TAC), which are pollutants that may cause serious, long-term effects. Main sources of outdoor TACs include emissions from stationary sources (e.g., factories, refineries, powerplants) and mobile sources e.g., cars, trucks, buses) (US EPA 2018). For indoor TACs, the main sources include building materials (e.g., asbestos) and chemicals like solvents (US EPA 2018). 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 (US EPA 2021b). By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs (CARB 1999). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. There are no air quality standards for TACs. Instead, TAC impacts are evaluated by calculating the health risks associated with a given exposure. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most relevant to the proposed project being particulate matter from diesel-fueled engines.

*Diesel Particulate Matter*

In 1998, CARB identified diesel particulate matter (DPM) as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particles are 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs. Long-term (chronic) inhalation of DPM is likely a lung cancer risk. Short-term (i.e., acute) exposure can cause irritation and inflammatory systems and may exacerbate existing allergies and asthma systems (USEPA 2002).

**5.2.1.1 REGULATORY BACKGROUND**

Ambient air quality standards have been adopted at the state and federal levels for criteria air pollutants. In addition, both the state and federal government regulate the release of TACs. The proposed project is in the SoCAB and is subject to the rules and regulations imposed by the South Coast AQMD as well as the California

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AAQS adopted by CARB and National AAQS adopted by the EPA. Federal, state, and regional laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized in this section.

#### Federal and State

##### *Ambient Air Quality Standards*

The Clean Air Act was passed in 1963 by the US Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The Clean Air Act allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act, signed into law in 1988, requires all areas of the state to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS.

These National and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect “sensitive receptors” most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants. As shown in Table 5.2-2, *Ambient Air Quality Standards for Criteria Pollutants*, these pollutants are O<sub>3</sub>, NO<sub>2</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and Pb. In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

**Table 5.2-2 Ambient Air Quality Standards for Criteria Pollutants**

Pollutant	Averaging Time	California Standard <sup>1</sup>	Federal Primary Standard <sup>2</sup>	Major Pollutant Sources
Ozone (O <sub>3</sub> ) <sup>3</sup>	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	

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**Table 5.2-2 Ambient Air Quality Standards for Criteria Pollutants**

Pollutant	Averaging Time	California Standard <sup>1</sup>	Federal Primary Standard <sup>2</sup>	Major Pollutant Sources
Sulfur Dioxide (SO <sub>2</sub> ) <sup>5</sup>	Annual Arithmetic Mean	*	0.030 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	0.14 ppm	
Respirable Coarse Particulate Matter (PM <sub>10</sub> )	Annual Arithmetic Mean	20 µg/m <sup>3</sup>	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	
Respirable Fine Particulate Matter (PM <sub>2.5</sub> ) <sup>4</sup>	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	12 µg/m <sup>3</sup>	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 µg/m <sup>3</sup>	
Lead (Pb)	30-Day Average	1.5 µg/m <sup>3</sup>	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	*	1.5 µg/m <sup>3</sup>	
	Rolling 3-Month Average	*	0.15 µg/m <sup>3</sup>	
Sulfates (SO <sub>4</sub> )	24 hours	25 µg/m <sup>3</sup>	*	Industrial processes.
Visibility Reducing Particles	8 hours	ExCo =0.23/km visibility of 10≥ miles	*	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.
Hydrogen Sulfide	1 hour	0.03 ppm	*	Hydrogen sulfide (H <sub>2</sub> S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hours	0.01 ppm	*	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

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**Table 5.2-2 Ambient Air Quality Standards for Criteria Pollutants**

Pollutant	Averaging Time	California Standard <sup>1</sup>	Federal Primary Standard <sup>2</sup>	Major Pollutant Sources
Source: CARB 2016.				
Notes: ppm: parts per million; µg/m <sup>3</sup> : micrograms per cubic meter				
* Standard has not been established for this pollutant/duration by this entity.				
<sup>1</sup> California standards for O <sub>3</sub> , CO (except 8-hour Lake Tahoe), SO <sub>2</sub> (1 and 24 hour), NO <sub>2</sub> , and particulate matter (PM <sub>10</sub> , PM <sub>2.5</sub> , and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.				
<sup>2</sup> National standards (other than O <sub>3</sub> , PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O <sub>3</sub> standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM <sub>10</sub> , the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m <sup>3</sup> is equal to or less than one. For PM <sub>2.5</sub> , the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.				
<sup>3</sup> On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.				
<sup>4</sup> On December 14, 2012, the national annual PM <sub>2.5</sub> primary standard was lowered from 15 µg/m <sup>3</sup> to 12.0 µg/m <sup>3</sup> . The existing national 24-hour PM <sub>2.5</sub> standards (primary and secondary) were retained at 35 µg/m <sup>3</sup> , as was the annual secondary standard of 15 µg/m <sup>3</sup> . The existing 24-hour PM <sub>10</sub> standards (primary and secondary) of 150 µg/m <sup>3</sup> also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.				
<sup>5</sup> On June 2, 2010, a new 1-hour SO <sub>2</sub> standard was established and the existing 24-hour and annual primary standards were revoked. The 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.				

California has also adopted a host of other regulations that reduce criteria pollutant emissions.

- **Assembly Bill (AB) 1493: Pavley Fuel Efficiency Standards.** Pavley I is a clean-car standard that reduces greenhouse gas (GHG) emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025.
- **Heavy-Duty (Tractor-Trailer) GHG Regulation.** The tractors and trailers subject to this regulation must either use EPA SmartWay-certified tractors and trailers or retrofit their existing fleet with SmartWay-verified technologies. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. These owners are responsible for replacing or retrofitting their affected vehicles with compliant aerodynamic technologies and low rolling resistance tires. Sleeper cab tractors model year 2011 and later must be SmartWay certified. All other tractors must use SmartWay-verified low-rolling-resistance tires. There are also requirements for trailers to have low-rolling-resistance tires and aerodynamic devices
- **SB 1078 and SB 107.** Renewables Portfolio Standards. A major component of California's Renewable Energy Program is the renewables portfolio standard (RPS) established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010.
- **California Code of Regulations (CCR), Title 20: Appliance Energy Efficiency Standards.** The 2006 Appliance Efficiency Regulations (20 CCR sections 1601–1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances.

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- **24 CCR, Part 6: Building and Energy Efficiency Standards.** Energy conservation standards for new residential and nonresidential buildings adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) in June 1977.
- **24 CCR, Part 11: Green Building Standards Code.** Establishes planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.<sup>6</sup>

#### *Tanner Air Toxics Act and Air Toxics Hot Spot Information and Assessment Act*

Public exposure to TACs is a significant environmental health issue in California. In 1983, the California legislature enacted a program to identify the health effects of TACs and reduce exposure to them. The California Health and Safety Code defines a TAC as “an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health” (17 CCR sec. 93000). A substance that is listed as a hazardous air pollutant pursuant to Section 112(b) of the federal Clean Air Act (42 US Code sec. 7412[b]) is a TAC. Under state law, the California Environmental Protection Agency, acting through CARB, is authorized to identify a substance as a TAC if it is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics “Hot Spot” Information and Assessment Act of 1987). The Tanner Air Toxics Act set up a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an “airborne toxics control measure” for sources that emit that TAC. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate “toxics best available control technology” to minimize emissions. To date, CARB has established formal control measures for 11 TACs that are identified as having no safe threshold.

Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High-priority facilities are required to perform a health risk assessment, and if specific thresholds are exceeded, are required to communicate the results to the public through notices and public meetings.

CARB has promulgated the following specific rules to limit TAC emissions:

- **13 CCR Chapter 10 Section 2485: Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.** Generally restricts on-road diesel-powered commercial motor vehicles with a gross vehicle weight rating of greater than 10,000 pounds from idling more than five minutes.

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<sup>6</sup> The green building standards became mandatory in the 2010 edition of the code.

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- **13 CCR Chapter 10 Section 2480: Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools.** Generally restricts a school bus or transit bus from idling for more than five minutes when within 100 feet of a school.
- **13 CCR Section 2477 and Article 8: Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate.** Regulations established to control emissions associated with diesel-powered TRUs.

### Regional

#### *Air Quality Management Planning*

The South Coast AQMD is the agency responsible for improving air quality in the SoCAB and ensuring that the National and California AAQS are attained and maintained. South Coast AQMD is responsible for preparing the air quality management plan (AQMP) for the SoCAB in coordination with the Southern California Association of Governments (SCAG). The AQMP is a regional strategy plan to achieve air quality standards by examining emissions, looking at regional growth projections, and the impact of existing and proposed control measures to provide healthful air in the long-term. Since 1979, a number of AQMPs have been prepared.

The Clean Air Act requires CARB to develop a State Implementation Plan that describes how an area will attain national AAQS. The AQMP provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards through the SIP. Areas are classified as attainment or nonattainment areas for a particular pollutant depending on whether they meet the AAQSs. Severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme.

- ***Unclassified.*** A pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
- ***Attainment.*** A pollutant is in attainment if the AAQS for that pollutant was not violated at any site in the area during a three-year period.
- ***Nonattainment.*** A pollutant is in nonattainment if there was at least one violation of an AAQS for that pollutant in the area.
- ***Nonattainment/Transitional.*** A subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the AAQS for that pollutant.

#### ***2022 AQMP***

South Coast AQMD adopted the 2022 AQMP on December 2, 2022, which serves as an update to the 2017 AQMP. On October 1, 2015, the EPA strengthened the National AAQS for ground-level ozone, lowering the primary and secondary ozone standard levels to 70 parts per billion (ppb) (2015 Ozone National AAQS). The SoCAB is currently classified as an “extreme” nonattainment for the 2015 Ozone National AAQS. Meeting the 2015 federal ozone standard requires reducing NO<sub>x</sub> emissions, the key pollutant that creates ozone, by 67

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percent more than is required by adopted rules and regulations in 2037. The only way to achieve the required NO<sub>x</sub> reductions is through extensive use of zero emission (ZE) technologies across all stationary and mobile sources. South Coast AQMD's primary authority is over stationary sources which account for approximately 20 percent of NO<sub>x</sub> emissions. The overwhelming majority of NO<sub>x</sub> emissions are from heavy-duty trucks, ships and other State and federally regulated mobile sources that are mostly beyond the South Coast AQMD's control. The region will not meet the standard absent significant federal action. In addition to federal action, the 2022 AQMP requires substantial reliance on future deployment of advanced technologies to meet the standard. The control strategy for the 2022 AQMP includes aggressive new regulations and the development of incentive programs to support early deployment of advanced technologies. The two key areas for incentive programs are (1) promoting widespread deployment of available ZE and low-NO<sub>x</sub> technologies and (2) developing new ZE and ultra-low NO<sub>x</sub> technologies for use in cases where the technology is not currently available. South Coast AQMD is prioritizing distribution of incentive funding in Environmental Justice areas and seeking opportunities to focus benefits on the most disadvantaged communities (South Coast AQMD 2022).

#### ***South Coast AQMD PM<sub>2.5</sub> Redesignation Request and Maintenance Plan***

In 1997, the EPA adopted the 24-hour fine PM<sub>2.5</sub> standard of 65 micrograms per cubic meter (µg/m<sup>3</sup>). In 2006, this standard was lowered to a more health-protective level of 35 µg/m<sup>3</sup>. The SoCAB is designated nonattainment for both the 65 and 35 µg/m<sup>3</sup> 24-hour PM<sub>2.5</sub> standards (24-hour PM<sub>2.5</sub> standards). In 2020, monitored data demonstrated that the SoCAB attained both 24-hour PM<sub>2.5</sub> standards. The South Coast AQMD has developed the "2021 Redesignation Request and Maintenance Plan" for the 1997 and 2006 24-hour PM<sub>2.5</sub> Standards for the SoCAB PM<sub>2.5</sub> Redesignation Request and Maintenance Plan, demonstrating that the SoCAB has met the requirements to be redesignated to attainment for the 24-hour PM<sub>2.5</sub> standards (South Coast AQMD 2021b).

#### ***Assembly Bill 617, Community Air Protection Program***

AB 617 (C. Garcia, Chapter 136, Statutes of 2017) requires local air districts to monitor and implement air pollution control strategies that reduce localized air pollution in communities that bear the greatest burdens. In response to AB 617, CARB has established the Community Air Protection Program.

Air districts are required to host workshops to help identify disadvantaged communities that are disproportionately affected by poor air quality. Once the criteria for identifying the highest priority locations have been identified and the communities have been selected, new community monitoring systems would be installed to track and monitor community-specific air pollution goals. In 2018 CARB prepared an air monitoring plan, the Community Air Protection Blueprint (Blueprint) that evaluates the availability and effectiveness of air monitoring technologies and existing community air monitoring networks. Under AB 617, the Blueprint is required to be updated every five years.

Under AB 617, CARB is also required to prepare a statewide strategy to reduce TACs and criteria pollutants in impacted communities; provide a statewide clearinghouse for best available retrofit control technology; adopt new rules requiring the latest best available retrofit control technology for all criteria pollutants for which an area has not achieved attainment of California AAQS; and provide uniform, statewide reporting of emissions

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inventories. Air districts are required to adopt a community emissions reduction program to achieve reductions for the communities impacted by air pollution that CARB identifies.

#### *Lead Implementation Plan*

In 2008, the EPA designated the Los Angeles County portion of the SoCAB as a nonattainment area under the federal lead (Pb) classification because of the addition of source-specific monitoring under the new federal regulation. This designation was based on two source-specific monitors in the City of Vernon and the City of Industry that exceeded the new standard in the 2007 to 2009 period. The remainder of the SoCAB, outside the Los Angeles County nonattainment area, remains in attainment of the new 2008 lead standard. On May 24, 2012, CARB approved the SIP revision for the federal lead standard, which the EPA revised in 2008. Lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011. The SIP revision was submitted to the EPA for approval.

#### *South Coast AQMD Rules and Regulations*

All projects within the SoCAB are subject to South Coast AQMD rules and regulations in effect at the time of activity.

- **Rule 401, Visible Emissions.** This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in visible emissions. Specifically, the rule prohibits the discharge of any air contaminant into the atmosphere by a person from any single source of emission for a period or periods aggregating more than three minutes in any one hour that is as dark as or darker than designated No. 1 on the Ringelmann Chart, as published by the US Bureau of Mines.
- **Rule 402, Nuisance.** This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in a public nuisance. Specifically, this rule prohibits any person from discharging quantities of air contaminants or other material from any source such that it would result in an injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public. Additionally, the discharge of air contaminants would also be prohibited where it would endanger the comfort, repose, health, or safety of any number of persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.
- **Rule 403, Fugitive Dust.** This rule is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust and requires best available control measures to be applied to earth-moving and grading activities.
- **Rule 445, Wood Burning Devices.** In general, the rule prohibits new developments from the installation of wood-burning devices. This rule is intended to reduce the emission of particulate matter from wood-burning devices and applies to manufacturers and sellers of wood-burning devices, commercial sellers of firewood, and property owners and tenants that operate a wood-burning device.

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- **Rule 1113, Architectural Coatings.** This rule serves to limit the VOCs content of architectural coatings used on projects in the South Coast AQMD. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects in the South Coast AQMD must comply with the current VOC standards set in this rule.
- **Rule 1403, Asbestos Emissions from Demolition/Renovation Activities.** The purpose of this rule is to specify work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials (ACM). The requirements for demolition and renovation activities include asbestos surveying, notification, ACM removal procedures and time schedules, ACM handling and clean-up procedures, and storage, disposal, and landfilling requirements for asbestos-containing waste materials. All operators are required to maintain records, including waste shipment records, and are required to use appropriate warning labels, signs, and markings.
- **Rule 2305, Warehouse Indirect Source Rule: Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program.** The purpose of this rule is to reduce local and regional emissions of nitrogen oxides and particulate matter, and to facilitate local and regional emission reductions associated with warehouses and the mobile sources attracted to warehouses in order to assist in meeting state and federal air quality standards for ozone and fine particulate matter.

#### 5.2.1.2 EXISTING CONDITIONS

The proposed project site is in the SoCAB, which includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino counties. The SoCAB is in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter. The region lies in the semipermanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds (South Coast AQMD 2005).

#### Meteorology

##### *Temperature and Precipitation*

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station nearest to the proposed project site with temperature data is the San Gabriel Canyon Monitoring Station (ID 047776). The average low is reported at 47.2 °F in January, and the average high is 91.7 °F in August (WRCC 2023).

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from October through April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains. Rainfall averages 22.28 inches per year in the vicinity of the project (WRCC 2023).

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#### *Humidity*

Although the SoCAB has a semiarid climate, the air near the Earth's surface is typically moist because of a shallow marine layer. This "ocean effect" is dominant except for infrequent periods when dry, continental air is brought into the SoCAB by offshore winds. Periods of heavy fog are frequent, given the air basin's location along the coast. Low clouds, often referred to as high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SoCAB (South Coast AQMD 1993).

#### *Wind*

Wind patterns across the southern coastal region are characterized by westerly or southwesterly onshore winds during the day and easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season.

Between periods of wind, periods of air stagnation may occur in the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall months, surface high-pressure systems over the SoCAB combined with other meteorological conditions can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east inhibit eastward transport and diffusion of pollutants. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal Southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions (South Coast AQMD 2005).

#### *Inversions*

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, two distinct types of temperature inversions control the vertical depth through which pollutants are mixed. These inversions are the marine/subsidence inversion and the radiation inversion. The height of the base of the inversion at any given time is known as the "mixing height." The combination of winds and inversions are critical determinants in leading to the highly degraded air quality in summer and the generally good air quality in the winter in the Air Basin (South Coast AQMD 2005).

### **SoCAB Nonattainment Areas**

The attainment status for the SoCAB is shown in Table 5.2-3, *Attainment Status of Criteria Air Pollutants in the South Coast Air Basin*.

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**Table 5.2-3 Attainment Status of Criteria Air Pollutants in the South Coast Air Basin**

Pollutant	State	Federal
Ozone – 1-hour	Extreme Nonattainment	No Federal Standard
Ozone – 8-hour	Extreme Nonattainment	Extreme Nonattainment
PM <sub>10</sub>	Serious Nonattainment	Attainment
PM <sub>2.5</sub>	Nonattainment	Nonattainment <sup>1</sup>
CO	Attainment	Attainment
NO <sub>2</sub>	Attainment	Attainment/Maintenance
SO <sub>2</sub>	Attainment	Attainment
Lead	Attainment	Nonattainment (Los Angeles County only) <sup>2</sup>
All others	Attainment/Unclassified	Attainment/Unclassified

Source: CARB 2023a.

<sup>1</sup> The SoCAB is pending a resignation request from nonattainment to attainment for the 24-hour federal PM<sub>2.5</sub> standards. The *2021 PM<sub>2.5</sub> Redesignation Request and Maintenance Plan* demonstrates that the SoCAB meets the requirements of the CAA to allow US EPA to redesignate the SoCAB to attainment for the 65 µg/m<sup>3</sup> and 35 µg/m<sup>3</sup> 24-hour PM<sub>2.5</sub> standards. CARB has reviewed and adopted submit the *2021 PM<sub>2.5</sub> Redesignation Request and Maintenance Plan* to the US EPA as a revision to the California SIP (CARB 2021).

<sup>2</sup> In 2010, the Los Angeles portion of the SoCAB was designated nonattainment for lead under the new 2008 federal AAQS as a result of large industrial emitters. Remaining areas for lead in the SoCAB are unclassified. However, lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011 (South Coast AQMD 2012). CARB's SIP revision was submitted to the EPA for approval.

**Multiple Air Toxics Exposure Study V**

The Multiple Air Toxics Exposure Study (MATES) is a monitoring and evaluation study on existing ambient concentrations of TACs and the potential health risks from air toxics in the SoCAB. In April 2021, South Coast AQMD released the latest update to the MATES study, MATES V. The first MATES analysis, MATES I, began in 1986 but was limited because of the technology available at the time. Conducted in 1998, MATES II was the first MATES iteration to include a comprehensive monitoring program, an air toxics emissions inventory, and a modeling component. MATES III was conducted in 2004 to 2006, with MATES IV following in 2012 to 2013.

MATES V uses measurements taken during 2018 and 2019, with a comprehensive modeling analysis and emissions inventory based on 2018 data. The previous MATES studies quantified the cancer risks based on the inhalation pathway only. MATES V includes information on the chronic noncancer risks from inhalation and non-inhalation pathways for the first time. Cancer risks and chronic noncancer risks from MATES II through IV measurements have been reexamined using current Office of Environmental Health Hazards Assessment and California Environmental Protection Agency risk assessment methodologies and modern statistical methods to examine the trends over time.

The MATES V study showed that cancer risk in the SoCAB decreased to 454 in a million from 997 in a million in the MATES IV study. Overall, air toxics cancer risk in the SoCAB decreased by 54 percent since 2012 when MATES IV was conducted. MATES V showed the highest risk locations near the Los Angeles International Airport and the Ports of Long Beach and Los Angeles. DPM continues to be the major contributor to air toxics cancer risk (approximately 72 percent of the total cancer risk). Goods movement and transportation corridors

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have the highest cancer risk. Transportation sources account for 88 percent of carcinogenic air toxics emissions, and the remainder is from stationary sources, which include large industrial operations such as refineries and power plants as well as smaller businesses such as gas stations and chrome-plating facilities. (South Coast AQMD 2021b).

#### Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site are best documented by measurements taken by the South Coast AQMD. The project site is located within Source Receptor Area (SRA) 9: East San Gabriel Valley. The air quality monitoring station closest to the project site is the Azusa Monitoring Station, which is one of 31 monitoring stations South Coast AQMD operates and maintains within the SoCAB.<sup>7</sup> Data from this station includes O<sub>3</sub>, NO<sub>2</sub>, and PM<sub>10</sub> and is summarized in Table 5.2-4, *Ambient Air Quality Monitoring Summary*. The data show that the area regularly exceeds the state and federal one-hour and eight-hour O<sub>3</sub> standards within the last five recorded years. Additionally, the area has regularly exceeded the state PM<sub>10</sub> standards and federal PM<sub>2.5</sub> standard.

**Table 5.2-4 Ambient Air Quality Monitoring Summary**

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations <sup>1,2</sup>				
	2017	2018	2019	2020	2021
<b>Ozone (O<sub>3</sub>)</b>					
State 1-Hour ≥ 0.09 ppm (days exceed threshold)	38	24	34	53	20
State & Federal 8-hour ≥ 0.070 ppm (days exceed threshold)	62	42	39	62	21
Max. 1-Hour Conc. (ppm)	0.152	0.139	0.123	0.168	0.108
Max. 8-Hour Conc. (ppm)	0.096	0.099	0.094	0.125	0.086
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>					
State 1-Hour ≥ 0.18 ppm (days exceed threshold)	0	0	0	0	0
Federal 1-Hour ≥ 0.100 ppm (days exceed threshold)	0	0	0	0	0
Max. 1-Hour Conc. (ppb)	0.0656	0.0708	0.0597	0.0648	0.0781
<b>Coarse Particulates (PM<sub>10</sub>)</b>					
State 24-Hour > 50 µg/m <sup>3</sup> (days exceed threshold)	7	10	4	9	0
Federal 24-Hour > 150 µg/m <sup>3</sup> (days exceed threshold)	0	0	0	0	0
Max. 24-Hour Conc. (µg/m <sup>3</sup> )	83.9	78.3	82.0	152.3	33.3
<b>Fine Particulates (PM<sub>2.5</sub>)</b>					
Federal 24-Hour > 35 µg/m <sup>3</sup> (days exceed threshold)	0	1	1	5	3
Max. 24-Hour Conc. (µg/m <sup>3</sup> )	24.9	41.8	70.3	102.7	61.9

Source: CARB 2023c.

Notes: ppm = parts per million; ppb = parts per billion; µg/m<sup>3</sup> = micrograms per cubic meter; \* = Data not available

<sup>1</sup> Data for O<sub>3</sub>, NO<sub>2</sub>, and PM<sub>10</sub> obtained from the Los Angeles-Westchester Parkway Monitoring Station. Data for PM<sub>2.5</sub> obtained from the Azusa Monitoring Station.

<sup>2</sup> Most recent data available as of May 2023.

<sup>7</sup> Locations of the SRAs and monitoring stations are shown here: <http://www.aqmd.gov/docs/default-source/default-document-library/map-of-monitoring-areas.pdf>.

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#### Existing Emissions

At the time of the Notice of Preparation for this Draft EIR, reclamation of the former landfill was underway in accordance with the August 22, 2022, Operations Plan, as approved by the Regional Water Quality Control Board (see Section 3.3.1.1 *Project Background* of this DEIR). The site reclamation includes the removal/demolition of any remaining structures, addressing the existing landfill, and rough grading the project site. The grading plan associated with the reclamation has been approved by the County of Los Angeles Department of Public Works. The approval and implementation of these activities serve as baseline (existing) conditions for analysis of potential environmental impacts in this DEIR. As such, for analysis purposes, it is assumed that the site does not generate criteria air pollutant emissions under baseline conditions for the EIR.

#### Sensitive Receptors

Some land uses are considered more sensitive to air pollution (i.e., TACs) than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases.

Residential areas are also considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to pollutants. Other sensitive receptors include retirement facilities, hospitals, and schools. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent because the majority of workers tend to stay indoors most of the time. In addition, the workforce is generally the healthiest segment of the population. The nearest receptors are the single-family homes approximately 2,100 feet to southeast of the site along Stewart Avenue, and the Kare Youth League Park along Arrow Highway, approximately 300 feet north of the site (see Figure 3-3, *Aerial Photograph*).

### 5.2.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would have a significant effect on the environment with respect to air quality if the project would:

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

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#### 5.2.2.1 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT THRESHOLDS

Air quality throughout the United States has seen substantial improvements since 1970 (USEPA 2023b). And despite the significant population and economic growth in the region, the SoCAB has also experienced vast improvements to air quality (South Coast AQMD 2022). However, as new information comes to light regarding the effects of these criteria pollutants, standards must be continually updated to curb these effects. South Coast AQMD has established thresholds of significance for air quality for construction activities and project operation in the SoCAB, as shown in Table 5.2-5, *South Coast AQMD Significance Thresholds*. The table lists thresholds that are applicable for all projects uniformly, regardless of size or scope. As discussed above, there is growing evidence that although ultrafine particulate matter contributes a very small portion of the overall atmospheric mass concentration, it represents a greater proportion of the health risk from PM. However, because the EPA and CARB have not adopted AAQS to regulate ultrafine particulate matter, South Coast AQMD has not developed thresholds for it.

**Table 5.2-5 South Coast AQMD Significance Thresholds**

Air Pollutant	Construction Phase	Operational Phase
Reactive Organic Gases (ROG)	75 lbs./day	55 lbs./day
Carbon Monoxide (CO)	550 lbs./day	550 lbs./day
Nitrogen Oxides (NO <sub>x</sub> )	100 lbs./day	55 lbs./day
Sulfur Oxides (SO <sub>x</sub> )	150 lbs./day	150 lbs./day
Particulates (PM <sub>10</sub> )	150 lbs./day	150 lbs./day
Particulates (PM <sub>2.5</sub> )	55 lbs./day	55 lbs./day

Source: South Coast AQMD 2023a.

#### Health Outcomes Associated with the AQMD Regional Significance Thresholds

Projects that exceed the AQMD's regional significance threshold contribute to the nonattainment designation of the SoCAB. The attainment designations are based on the AAQS, which are set at levels of exposure that are determined to not result in adverse health effects. Exposure to fine particulate pollution and ozone causes myriad health impacts, particularly to the respiratory and cardiovascular systems:

- Increases cancer risk (PM<sub>2.5</sub>, TACs)
- Aggravates respiratory disease (O<sub>3</sub>, PM<sub>2.5</sub>)
- Increases bronchitis (O<sub>3</sub>, PM<sub>2.5</sub>)
- Causes chest discomfort, throat irritation, and increased effort to take a deep breath (O<sub>3</sub>)
- Reduces resistance to infections and increases fatigue (O<sub>3</sub>)
- Reduces lung growth in children (PM<sub>2.5</sub>)
- Contributes to heart disease and heart attacks (PM<sub>2.5</sub>)
- Contributes to premature death (O<sub>3</sub>, PM<sub>2.5</sub>)
- Contributes to lower birth weight in newborns (PM<sub>2.5</sub>) (South Coast AQMD 2015a)

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Exposure to fine particulates and ozone aggravates asthma attacks and can amplify other lung ailments such as emphysema and chronic obstructive pulmonary disease. Exposure to current levels of PM<sub>2.5</sub> is responsible for an estimated 4,300 cardiopulmonary-related deaths per year in the SoCAB. In addition, University of Southern California scientists, in a landmark children's health study, found that lung growth improved as air pollution declined for children aged 11 to 15 in five communities in the SoCAB (South Coast AQMD 2015b).

South Coast AQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals exposed to elevated concentrations of air pollutants in the SoCAB and has established thresholds that would be protective of these individuals. To achieve the health-based standards established by the EPA, South Coast AQMD prepares an AQMP that details regional programs to attain the AAQS. Mass emissions thresholds shown in Table 5.2-5 are not correlated with concentrations of air pollutants, but emissions exceeding the thresholds contribute to the cumulative air quality impacts in the SoCAB. These thresholds are based on the trigger levels for the federal New Source Review Program, which was created to ensure projects are consistent with attainment of health-based federal AAQS. Regional emissions from a single project do not trigger a regional health impact, and it is speculative to identify how many more individuals in the air basin would be affected by the health effects listed previously. Projects that do not exceed the South Coast AQMD's regional significance thresholds in Table 5.2-5 would not violate any air quality standards or contribute substantially to an existing or projected air quality violation.

If projects exceed the emission levels in Table 5.2-5, those emissions would cumulatively contribute to the nonattainment status of the air basin and would contribute to worsening health effects associated with these criteria air pollutants. Known health effects related to ozone include exacerbating bronchitis, asthma, and emphysema and a decrease in lung function. Health effects associated with particulate matter include premature death of people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms. Reducing emissions would contribute to reducing possible health effects related to criteria air pollutants. However, for projects that exceed the emissions in Table 5.2-5, it is speculative to determine this would affect the number of days the region is in nonattainment, because mass emissions are not correlated with concentrations of emissions, or how many additional individuals in the air basin would be affected by the health effects cited previously.

South Coast AQMD has not provided methodology to assess the specific correlation between mass emissions generated and the effect on health to address the issue raised in *Sierra Club v. County of Fresno (Friant Ranch)* (2018) 6 Cal.5th 502, Case No. S21978. South Coast AQMD currently does not have methodologies that would provide the City with a consistent, reliable, and meaningful analysis to correlate specific health impacts that may result from a proposed project's mass emissions.<sup>8</sup> Ozone concentrations are dependent on a variety of complex

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<sup>8</sup> In April 2019, the Sacramento Metropolitan Air Quality Management District (SMAQMD) published an Interim Recommendation on implementing *Friant Ranch* in the review and analysis of proposed projects under CEQA in Sacramento County. Consistent with the expert opinions submitted to the court in *Friant Ranch* by the San Joaquin Valley Air Pollution Control District and South Coast AQMD, the SMAQMD guidance confirms the absence of an acceptable or reliable quantitative methodology that would correlate the expected criteria air pollutant emissions of projects to likely health consequences for people from project-generated criteria air pollutant emissions. The SMAQMD guidance explains that while it is in the process of developing a methodology to assess these impacts, lead agencies should follow the court's advice to explain in meaningful detail why this analysis is not yet feasible. Since this interim memorandum, SMAQMD has provided methodology to address health impacts. However, a similar analysis is not available for projects in the SoCAB.

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factors, including the presence of sunlight and precursor pollutants, natural topography, nearby structures that cause building downwash, atmospheric stability, and wind patterns. Because of the complexities of predicting ground-level ozone concentrations in relation to the National and California AAQS, and the absence of modeling tools that could provide statistically valid data and meaningful additional information regarding health effects from criteria air pollutants generated by individual projects, it is not possible to link specific health risks to the magnitude of emissions exceeding the significance thresholds. However, if a project in the SoCAB exceeds the regional significance thresholds, the project could contribute to an increase in health effects in the basin until the attainment standards are met in the SoCAB.

### CO Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to AAQSs is typically demonstrated through an analysis of localized CO concentrations. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. With the turnover of older vehicles and introduction of cleaner fuels as well as implementation of control technology on industrial facilities, CO concentrations in the SoCAB and the state have steadily declined.

In 2007, the SoCAB was designated in attainment for CO under both the California AAQS and National AAQS. The CO hotspot analysis conducted for attainment by South Coast AQMD did not predict a violation of CO standards at the busiest intersections in Los Angeles during the peak morning and afternoon periods.<sup>9</sup> As identified in South Coast AQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SoCAB in years before the 2007 redesignation were a result of unusual meteorological and topographical conditions and not of congestion at a particular intersection. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection to more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—to generate a significant CO impact (BAAQMD 2017).<sup>10</sup>

### Localized Significance Thresholds

South Coast AQMD identifies localized significance thresholds (LST), shown in Table 5.2-6, *South Coast AQMD Localized Significance Thresholds*. Emissions of NO<sub>2</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> generated at a project site could expose

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<sup>9</sup> The four intersections were: Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire and Veteran) had traffic volumes of approximately 100,000 vehicles per day, with LOS E in the morning peak hour and LOS F in the evening peak hour.

<sup>10</sup> The CO hotspot analysis refers to the modeling conducted by the Bay Area Air Quality Management District for its CEQA Guidelines because it is based on newer data and considers the improvement in mobile-source CO emissions. Although meteorological conditions in the Bay Area differ from those in the Southern California region, the modeling conducted by BAAQMD demonstrates that the net increase in peak hour traffic volumes at an intersection in a single hour would need to be substantial. This finding is consistent with the CO hotspot analysis South Coast AQMD prepared as part of its 2003 AQMP to provide support in seeking CO attainment for the SoCAB. Based on the analysis prepared by South Coast AQMD, no CO hotspots were predicted for the SoCAB. As noted in the preceding footnote, the analysis included some of Los Angeles' busiest intersections, with daily traffic volumes of 100,000 and operating at LOS E and F during peak hours.

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sensitive receptors to substantial concentrations of criteria air pollutants. Off-site mobile-source emissions are not included in the LST analysis. A project would generate a significant impact if it generates emissions that, when added to the local background concentrations, violate the AAQS.

**Table 5.2-6 South Coast AQMD Localized Significance Thresholds**

Air Pollutant (Relevant AAQS)	Concentration
1-Hour CO Standard (CAAQS)	20 ppm
8-Hour CO Standard (CAAQS)	9.0 ppm
1-Hour NO <sub>2</sub> Standard (CAAQS)	0.18 ppm
Annual NO <sub>2</sub> Standard (CAAQS)	0.03 ppm
24-Hour PM <sub>10</sub> Standard – Construction (South Coast AQMD) <sup>1</sup>	10.4 µg/m <sup>3</sup>
24-Hour PM <sub>2.5</sub> Standard – Construction (South Coast AQMD) <sup>1</sup>	10.4 µg/m <sup>3</sup>
24-Hour PM <sub>10</sub> Standard – Operation (South Coast AQMD) <sup>1</sup>	2.5 µg/m <sup>3</sup>
24-Hour PM <sub>2.5</sub> Standard – Operation (South Coast AQMD) <sup>1</sup>	2.5 µg/m <sup>3</sup>
Annual Average PM <sub>10</sub> Standard (South Coast AQMD) <sup>1</sup>	1.0 µg/m <sup>3</sup>

Source: South Coast AQMD 2023.

ppm – parts per million; µg/m<sup>3</sup> – micrograms per cubic meter

<sup>1</sup> Threshold is based on South Coast AQMD Rule 403. Since the SoCAB is in nonattainment for PM<sub>10</sub> and PM<sub>2.5</sub>, the threshold is established as an allowable change in concentration. Therefore, background concentration is irrelevant.

To assist lead agencies, South Coast AQMD developed screening-level LSTs to back-calculate the mass amount (pounds per day) of emissions generated on-site that would trigger the levels shown in Table 5.2-6 for projects under five acres. These “screening-level” LST tables are the LSTs for all projects of five acres and less and are based on emissions over an 8-hour period; however, they can be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required.

The construction screening-level LSTs in SRA 9 are shown in Table 5.2-7, *South Coast AQMD Screening-Level Localized Significance Thresholds for Construction*. For construction activities, LSTs are based on the acreage disturbed per day associated with the equipment used, up to a project site’s maximum disturbed acreage (South Coast AQMD 2011). The different types of construction activities would require different equipment mixes, resulting in multiple LSTs. The screening-level LSTs reflect the thresholds for sensitive receptors within 82 feet (25 meters) for NO<sub>x</sub> and CO and 2,180 feet (244 meters) for PM<sub>10</sub> and PM<sub>2.5</sub>. These two distances represent residences at 2,180 feet, which are assumed to be exposed to construction emissions 24 hours a day, and employees of nearby businesses at 82 feet, who would not be exposed to construction emissions for most of the day.

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**Table 5.2-7 South Coast AQMD Screening-Level Localized Significance Thresholds for Construction**

Acreage Disturbed	Threshold (lbs./day)			
	Nitrogen Oxides (NO <sub>x</sub> )	Carbon Monoxide (CO)	Coarse Particulates (PM <sub>10</sub> )	Fine Particulates (PM <sub>2.5</sub> )
≤1.00 Acres Disturbed per Day	89	623	266.98	133.47
1.31 Acres Disturbed per Day	101	726	269.31	135.69
1.50 Acres Disturbed per Day	108	788	270.70	137.02
1.75 Acres Disturbed per Day	118	870	272.57	138.79
1.81 Acres Disturbed per Day	121	273	273.03	139.24
2.06 Acres Disturbed per Day	130	969	274.90	140.98
2.25 Acres Disturbed per Day	134	1,018	276.31	142.22
2.31 Acres Disturbed per Day	136	1,034	276.78	142.63
3.75 Acres Disturbed per Day	172	1,408	287.58	152.14
4.25 Acres Disturbed per Day	184	1,538	291.34	155.45
≥5.00 Acres Disturbed per Day	203	1,733	296.98	160.41

Source: South Coast AQMD 2008, 2011.

Note: The screening-level LSTs are based on receptors within 82 feet (25 meters) for NO<sub>x</sub> and CO and 2,180 feet (244 meters) for PM<sub>10</sub> and PM<sub>2.5</sub> in SRA 9.

### Health Risk

Whenever a project would require use of chemical compounds that have been identified in South Coast AQMD Rule 1401, placed on CARB's air toxics list pursuant to AB 1807, or placed on the EPA's National Emissions Standards for Hazardous Air Pollutants, a health risk assessment is required by the South Coast AQMD. Table 5.2-8, *South Coast AQMD Toxic Air Contaminants Incremental Risk Thresholds*, lists the TAC incremental risk thresholds for operation of a project. The type of land uses whose operations typically generate substantial quantities of criteria air pollutants and TACs include industrial (stationary sources) and warehousing (truck idling) land uses (CARB 2005). These thresholds are applied to the proposed project's construction due to the scope and nature of the proposed project. Additionally, the purpose of this environmental evaluation is to identify the significant effects of the proposed project on the environment, not the significant effects of the environment on the proposed project (*California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (Case No. S213478)).

**Table 5.2-8 South Coast AQMD Toxic Air Contaminants Incremental Risk Thresholds**

Maximum Incremental Cancer Risk	≥ 10 in 1 million
Cancer Burden (in areas ≥ 1 in 1 million)	> 0.5 excess cancer cases
Hazard Index (project increment)	≥ 1.0

Source: South Coast AQMD 2023.

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### 5.2.3 Applicable Specific Plan Development Standards and Design Guidelines

#### 5.2.3.1 DEVELOPMENT STANDARDS

There are no Irwindale Gateway Specific Plan Development Standards specifically related to air quality.

#### 5.2.3.2 DESIGN GUIDELINES

There are no Irwindale Gateway Specific Plan Design Guidelines specifically related to air quality.

### 5.2.4 Environmental Impacts

The proposed project consists of two potential site plans. Under Option 1, the proposed project would result in the development of an industrial logistics and distribution center with three buildings and associated parking and loading docks, with 387,500 square feet of refrigerated space and 610,296 square feet of unrefrigerated space, for a total of 997,796 square feet of industrial space on 68.1 acres.<sup>11</sup> Proposed project development under Option 2 would involve construction and operation of two industrial buildings, with 387,500 square feet of refrigerated space and 316,570 square feet of unrefrigerated space, for a total of 704,070 square feet of industrial space on a 36.95-acre parcel. Option 2 would also develop a 15.95-acre parcel with a 400-megawatt Battery Energy Storage System (BESS) and ancillary facilities, including a 2-acre substation. An electric tie-line to the Southern California Edison Rio Hondo substation across Live Oak Avenue would connect the BESS to the transmission system. The electric tie-line would consist of three 220-kilovolt conductor cables below an optical ground wire, which would serve the dual purpose of grounding and fiber optic communications.

The following methodology is for both Option 1 and Option 2.

#### 5.2.4.1 METHODOLOGY

This air quality evaluation was prepared in accordance with the requirements of CEQA to determine if significant air quality impacts are likely to occur in conjunction with future development that would be accommodated by the proposed project. South Coast AQMD's *CEQA Air Quality Handbook* (Handbook) and updates on its website are intended to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts. The Handbook provides standards, methodologies, and procedures for conducting air quality analyses in environmental impact reports, which were used in this analysis.

Air pollutant emissions are calculated using the California Emissions Estimator Model (CalEEMod), version 2022.1 (CAPCOA 2022). CalEEMod compiles an emissions inventory of construction (fugitive dust, off-gas emissions, on-road emissions, and off-road emissions), area sources, indirect emissions from energy use, mobile sources, indirect emissions from waste disposal (annual only), and indirect emissions from water/wastewater (annual only).

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<sup>11</sup> Based on the preliminary data in the Specific Plan, both Option 1 and Option 2 are assumed to include 387,500 square feet of refrigerated space.

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#### Criteria Air Pollutant Emissions

Criteria air pollutant emissions modeling is in Appendix D1 of this DEIR. The calculated emissions of the proposed project are compared to thresholds of significance in Table 5.2-5 and using the South Coast AQMD Handbook and updates. The following is a summary of the assumptions used for the proposed project analysis.

#### *Construction Phase*

Construction would entail site preparation, rough grading, fine grading, utilities trenching, building construction, paving, architectural coating, and finishing and landscaping and sewer and storm drain construction on the 68.1-acre project site as well as off-site improvements for both Option 1 and Option 2. Option 2 would also include off-site improvements to connect the BESS to the transmission systems. The transmission system would include substation work at SCE's Rio Hondo substation, a new generation transmission line, and a new project substation (see Section 3.3.1.2, *Development Plan, Option 2*). For analysis purposes, off-site improvements were assumed to occur over 12 months between January 2025 and January 2026. The sewer and storm drain construction would occur between January 2025 and December 2025 for the sewer line that drains east on Live Oak Avenue and between September 2026 and August 2027 for the sewer system beneath the private driveways and drive aisles on the project site. Option 1 and Option 2 building construction were modeled over a period of 37 months, starting in July 2024 and ending in August 2027.

#### Construction Health Risk Assessment

A construction health risk assessment (HRA) for TACs associated with construction equipment exhaust was prepared for the proposed project. Sources evaluated in the HRA include off-road construction equipment and heavy-duty diesel trucks along the truck haul route, as shown in Appendix D2. Modeling is based on the EPA's AERMOD 11.2 air dispersion modeling program and the latest HRA guidance from the Office of Environmental Health Hazard Assessment (OEHHA) to estimate excess lifetime cancer risks and chronic noncancer hazard indices at the nearest maximum exposed off-site sensitive receptors (OEHHA 2015).

DPM emissions were based on the CalEEMod construction model runs using annual exhaust PM<sub>10</sub> construction emissions in pounds (lbs.) per day. Construction of both Option 1 and Option 2 would occur in two parts over a total of 28 months, between July 2024 and January 2026, then between September 2026 and August 2027. The average daily emission rates from construction equipment used during the proposed project were determined by dividing the annual average emissions for each construction year by the number of construction days per year for each calendar year of construction. The off-site hauling emission rates were adjusted to evaluate localized emissions from the haul route distance within 1,000 feet of the project site.

Air dispersion modeling using AERMOD was conducted to assess the impact of emitted compounds on sensitive receptors. The model is a steady-state Gaussian plume model and is a model approved by South Coast AQMD for estimating ground-level impacts from point and fugitive sources in simple and complex terrain. Meteorological data obtained from the South Coast AQMD for the nearest representative meteorological station (Azusa Monitoring Station) with the five latest available years (2012 to 2016) of record were used to represent local weather conditions and prevailing winds.

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For all modeling runs, a unit emission rate of 1 gram per second was used. The unit emission rates were proportioned over the poly-area sources for on-site construction emissions and divided between the volume sources for off-site hauling emissions. The maximum modeled concentrations at each sensitive receptor were then multiplied by the construction emission rates to obtain the maximum concentrations at the maximum exposed individual resident (MEIR) and the maximum exposed sports park receptor. The calculated total cancer risk conservatively assumes that the risk for the MEIR consists of a pregnant woman in the third trimester that subsequently gives birth to an infant during the construction period spanning from 2024 to 2027; therefore, all calculated risk values were multiplied by a factor of 10 for the first 2.25 years of construction and by a factor of 3 for the remaining years. In addition, it was conservatively assumed that the residents were outdoors 8 hours a day, 260 construction days per year, and exposed to all of the daily construction emissions. For Kare Youth League park users, risk exposure parameters were tailored for children ages 2 to 16 and included elevated breathing rates due to exercise and a daily exposure of 4 hours per day.

#### *Operational Phase*

- **Transportation.** The primary source of mobile criteria air pollutant emissions is tailpipe exhaust emissions from the combustion of fuel (i.e., gasoline and diesel). Additionally, for criteria air pollutants, brake and tire wear and fugitive dust created from vehicles traveling on roadways also generate particulate matter. The average daily trip generation was provided by Iteris (see Appendix L1).<sup>12</sup> Under Option 1, the proposed project would generate up to 550 truck trips<sup>13</sup> and 1,508 passenger trips for a total of 2,058 trips per day. Under Option 2, the proposed project would generate up to 418 truck trips and 1,093 passenger trips for a total of 1,511 trips per day. Project-related on-road criteria air pollutant emissions are based on year 2027 emission rates for the project buildout year.
- **Transport Refrigeration Units.** Emissions from transport refrigeration units (TRU) are based on the operation of 108 trucks with TRUs per day for Option 1<sup>14</sup> and 115 trucks with TRUs per day for Option 2,<sup>15</sup> 30 minutes of idling per unit, and calendar year 2027 aggregated Instate Trailer TRU emission rates obtained from OFFROAD2021 v1.0.4.
- **Off-Road Equipment.** It is anticipated the proposed project would utilize up to 53 diesel-powered forklifts and 4 yard trucks for daily operations for Option 1 and up to 37 diesel-powered forklifts and 3 yard trucks for daily operations for Option 2. In addition, Option 1 is assumed to utilize 2 diesel fire pumps and Option 2 is assumed to use up to 3 emergency generators and 1 diesel fire pump, each of which are assumed to be utilized for approximately 50 hours per year. The yard trucks would consist of diesel-powered units that would operate for 8 hours per day and 365 days per year.<sup>16</sup> Diesel-powered forklift, yard

<sup>12</sup> The average daily trips provided by Iteris were applied to weekday, Saturday, and Sunday trips because the proposed project is assumed to operate seven days per week.

<sup>13</sup> For the most conservative results, all truck trips have been assumed to be associated with heavy-heavy duty trucks.

<sup>14</sup> Option 1 assumes that there would be 397,500 square feet of refrigerated space (39 percent of total building space) and 316,570 square feet of unrefrigerated space (61 percent of total building space). Total truck trips have been proportioned between the refrigerated and unrefrigerated space for a total of 275 trucks, 107 with TRUs.

<sup>15</sup> Option 2 assumes that there would be 397,500 square feet of refrigerated space (55 percent of total building space) and 316,570 square feet of unrefrigerated space (45 percent of total building space). Total truck trips have been proportioned between the refrigerated and unrefrigerated space for a total of 209 trucks, 115 with TRUs.

<sup>16</sup> Based on 3.6-yard trucks per million square feet of building space (South Coast AQMD 2014).

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truck, pump, and generator emissions are based on emission factors from calendar year 2027 OFFROAD2021 v1.0.4, for a 100-horsepower industrial forklift, 175-horsepower port yard tractor, 50-horsepower pump, and 50-horsepower generator, respectively.

- **Area Sources.** Area source emissions from use of consumer cleaning products, landscaping equipment, and VOC emissions from paints are based on CalEEMod default values and the square footage of the proposed buildings and surface parking lot areas.
- **Energy.** Criteria air pollutant emissions from energy use are based on the CalEEMod defaults for natural gas usage for industrial land uses. The CalEEMod v2022.1 default energy (i.e., electricity and natural gas) rates for nonresidential land uses are based on the California Energy Commission's 2018-2030 Uncalibrated Commercial Sector Forecast (commercial forecast), which was compiled in 2019. Use of the CalEEMod default energy rates results in conservative estimates compared to the recently adopted 2022 Building Energy Efficiency Standards because the commercial forecast is based on the energy demand for the year 2019. It is anticipated that new buildings under the 2022 Standards would generally result in lower electricity use.

#### *Operational Health Risk Assessment*

An operational HRA for TACs associated with diesel exhaust was conducted for the proposed project. Sources evaluated in the HRA include heavy-duty diesel trucks, TRUs, offroad cargo handling equipment, emergency generators and fire pumps, and cold storage. Modeling is based on the EPA's AERMOD v11.2 and the latest HRA guidance from the OEHHA to estimate excess lifetime cancer risks and chronic noncancer hazard indices at the nearest maximum exposed off-site sensitive receptors (OEHHA 2015). DPM emissions were based on EMFAC2021 v1.0.2.

Air dispersion modeling was conducted to assess the impact of emitted compounds on sensitive receptors. AERMOD is a steady-state Gaussian plume model approved by South Coast AQMD for estimating ground level impacts from point and fugitive sources in simple and complex terrain. Meteorological data obtained from the South Coast AQMD for the nearest representative meteorological station (Azusa Monitoring Station) with the five latest available years (2012 to 2016) of record were used to represent local weather conditions and prevailing winds.

AERMOD and CARB's Hotspots Analysis and Reporting Program (HARP2) Risk Assessment Standalone Tool were used to estimate excess lifetime cancer risks and chronic noncancer hazard indices at the MEIR (CARB 2022). For Kare Youth League park users, risk exposure parameters were tailored for children ages 2 to 16 and included elevated breathing rates due to exercise and a daily exposure of 4 hours per day.

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### 5.2.4.2 IMPACT ANALYSIS

The following impact analysis addresses the thresholds of significance for which the Notice of Preparation disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.2-1: The proposed project would conflict with or obstruct implementation of the applicable air quality plan (the South Coast AQMD AQMP). [Threshold AQ-1]**

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A consistency determination with the AQMP plays an important role in local agency project review by linking local planning and individual projects to the AQMP. It fulfills the CEQA goal of informing decision makers of the environmental effects of the proposed project under consideration early enough to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether they are contributing to the clean air goals in the AQMP.

The regional emissions inventory for the SoCAB is compiled by South Coast AQMD and SCAG. Regional population, housing, and employment projections developed by SCAG are based, in part, on cities' general plan land use designations. These projections form the foundation for the emissions inventory of the AQMP. The demographic trends are incorporated into SCAG's Regional Transportation Plan/Sustainable Communities Strategy to determine priority transportation projects and vehicle miles traveled in the SCAG region. Because the AQMP strategy is based on projections from local general plans, projects that are consistent with the local general plan are considered consistent with the air-quality-related regional plan. Changes in population, housing, or employment growth projections have the potential to affect SCAG's demographic projections and therefore the assumptions in South Coast AQMD's AQMP.

Section 15206(b) of the CEQA Guidelines states that a proposed project is of statewide, regional, or area-wide significance if the project would involve a net increase of over 500,000 square feet of business establishment. The proposed project would occupy approximately 68.1 acres of land and introduce 997,796 square feet of industrial and office space under Option 1 and a BESS facility and 704,070 square feet of industrial and office space under Option 2. Therefore, it is a project of statewide, regional, or area-wide significance. As discussed in Section 8.3, *Population and Housing*, implementation of the proposed project would not generate additional population growth because it would not result in the development of residential land uses. In addition, according to SCAG forecasts, Irwindale would have 20,300 jobs by 2020 and 21,000 jobs by 2035 (SCAG 2023). However, as of 2020, the city has only 15,229 jobs (US Census Bureau 2023). Thus, though the proposed project would result in an increase in employment, it would not cause the city to reach or exceed the number of jobs forecast by SCAG. And because the AQMP is based on the SCAG forecasts, the proposed project would not substantially conflict with the emissions inventory in the current 2022 AQMP.

However, the long-term emissions generated by the proposed project would produce criteria air pollutants that exceed the South Coast AQMD significance thresholds for VOC and NO<sub>x</sub> during the proposed project Option 1 operations, and for NO<sub>x</sub> only during Option 2 operations (see Impact 5.2-3). South Coast AQMD's significance thresholds identify whether a project has the potential to cumulatively contribute to the SoCAB's nonattainment designations. Implementation of the proposed project would result in an increase in the

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frequency or severity of existing air quality violations; cause or contribute to new violations; or delay timely attainment of the AAQS. Therefore, overall, the proposed project (Options 1 and 2) would be considered inconsistent with the AQMP, and impacts would be potentially significant.

**Level of Significance Before Mitigation:** Potentially significant.

**Impact 5.2-2: Construction and operation associated with the proposed project under Option 1 and Option 2 would result in a cumulatively considerable net increase of criteria pollutants that exceed South Coast AQMD's threshold criteria. [Threshold AQ-2]**

Impacts associated with short-term construction activities and long-term operational emissions are discussed below.

### Construction

Construction activities produce combustion emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, and motor vehicles transporting the construction crew. Construction of the proposed project would generate criteria air pollutants associated with construction equipment exhaust and fugitive dust from site preparation, rough grading, fine grading, utilities trenching, building construction, paving, architectural coating, and finishing and landscaping; off-site improvements; and sewer and storm drain construction. Option 2 would also include installation of the BESS facility on-site. Air pollutant emissions from construction activities on-site would vary daily as construction activity levels change. An estimate of maximum daily construction emissions for Option 1 and Option 2 of the proposed project are provided in Table 5.2-9, *Maximum Daily Regional Construction Emissions (Option 1)*, and Table 5.2-10, *Maximum Daily Regional Construction Emissions (Option 2)*. The tables show the highest daily emissions that would be generated by the overlapping construction activities over the anticipated development period.

**Table 5.2-9 Maximum Daily Regional Construction Emissions (Option 1)**

Construction Phase	Pollutants (lbs./day) <sup>1, 2,3,4</sup>					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Year 2024</b>						
Building 1 construction and utilities trenching	5	34	63	<1	8	3
Building 1 construction	3	20	48	<1	7	2
<b>Year 2025</b>						
Building 1 construction   Linear, grubbing & land clearing	3	22	49	<1	8	2
Building 1 construction   Linear, grubbing & land clearing   Sewer main and storm drain site preparation (public)	5	33	61	<1	9	3
Building 1 construction   Linear, grading & excavation   Sewer main and storm drain site utility trenching and pipeline construction (public)	8	57	90	<1	11	4
Building 1 construction, paving, and architectural coating   Linear, grading & excavation   Sewer main and storm drain site utility trenching and pipeline construction (public)	17	66	114	<1	14	5

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**Table 5.2-9 Maximum Daily Regional Construction Emissions (Option 1)**

Construction Phase	Pollutants (lbs./day) <sup>1, 2,3,4</sup>					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Linear, grading & excavation   Sewer main and storm drain site utility trenching and pipeline construction (public)	4	39	45	<1	4	2
Linear, drainage, utilities, & subgrade   Sewer main and storm drain site utility trenching and pipeline construction (public)	4	34	39	<1	3	1
Linear, paving   Sewer main and storm drain site utility trenching and pipeline construction (public)	2	18	25	<1	1	1
Linear, paving   Sewer main and storm drain site utility trenching, pipeline construction, and paving (public)	3	24	34	<1	2	1
Linear, paving   Sewer main and storm drain site paving (public)	2	14	21	<1	1	1
<b>Year 2026</b>						
Linear, paving	1	6	9	<1	<1	<1
Rough grading, utilities trenching, and buildings 2 and 3 construction   Sewer main and storm drain site preparation (private)	9	67	98	<1	14	6
Rough grading, utilities trenching, and buildings 2 and 3 construction   Sewer main and storm drain site utility trenching and pipeline construction (private)	9	67	100	<1	14	6
Buildings 2 and 3 construction   Sewer main and public storm drain site utility trenching and pipeline construction (private)	4	27	56	<1	8	2
<b>Year 2027</b>						
Buildings 2 and 3 construction   Sewer main and storm drain site utility trenching and pipeline construction (private)	4	26	53	<1	8	2
Buildings 2 and 3 construction, paving, and architectural coating   Sewer main and storm drain site utility trenching and pipeline construction (private)	88	35	76	<1	11	3
Buildings 2 and 3 construction, paving, architectural coating, fine grading, and finishing/landscaping   Sewer main and storm drain site utility trenching and pipeline construction (private)	92	72	119	<1	16	6
Buildings 2 and 3 construction, paving, architectural coating, fine grading, and finishing/landscaping   Sewer main and storm drain site utility trenching, pipeline construction, and paving (private)	93	78	128	<1	17	6
Buildings 2 and 3 construction, paving, architectural coating, fine grading, and finishing/landscaping   Sewer main and storm drain site paving (private)	92	69	115	<1	16	6

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**Table 5.2-9 Maximum Daily Regional Construction Emissions (Option 1)**

Construction Phase	Pollutants (lbs./day) <sup>1, 2,3,4</sup>					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Maximum Daily Construction Emissions</b>						
Maximum Daily Emissions	93	78	128	<1	17	6
South Coast AQMD Regional Construction Threshold	75	100	550	150	150	55
Significant?	Yes	No	No	No	No	No

Source: CalEEMod Version 2022.1.0. Highest winter or summer emissions are reported.

<sup>1</sup> Based on the preliminary information provided by the Applicant. Where specific information regarding proposed project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by South Coast AQMD of construction equipment.

<sup>2</sup> Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, and street sweeping with Rule 1186-compliant sweepers.

<sup>3</sup> Construction activities include any changes to overlapping construction activities, such as the start of another construction activity or the conclusion of a construction activity.

<sup>4</sup> Linear construction phases are associated with off-site roadway improvements.

**Table 5.2-10 Maximum Daily Regional Construction Emissions (Option 2)**

Construction Phase	Pollutants (lbs./day) <sup>1, 2,3,4</sup>					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Year 2024</b>						
BESS site utility trenching and construction	4	31	53	<1	6	2
BESS site utility trenching and construction	4	31	53	<1	6	2
<b>Year 2025</b>						
BESS construction   Linear, grubbing & land clearing	3	20	39	<1	6	2
BESS construction   Linear, grubbing & land clearing   Sewer main and public storm drain site preparation (public)	4	31	51	<1	7	2
BESS construction   Linear, grading & excavation   Sewer main and public storm drain site utility trenching and pipeline construction (public)	7	55	81	<1	9	3
BESS construction and paving   Linear, grading & excavation   Sewer main and public storm drain site utility trenching and pipeline construction (public)	8	62	92	<1	10	4
Linear, grading & excavation   Sewer main and public storm drain site utility trenching and pipeline construction (public)	4	39	45	<1	4	2
Linear, drainage, utilities, & subgrade   Sewer main and public storm drain site utility trenching and pipeline construction (public)	4	34	39	<1	3	1
Linear, paving   Sewer main and public storm drain site utility trenching and pipeline construction (public)	2	18	25	<1	1	1
Linear, paving   Sewer main and public storm drain site utility trenching, pipeline construction, and paving (public)	3	24	34	<1	2	1
Linear, paving   Sewer main and public storm drain site paving (public)	2	14	21	<1	1	1

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**Table 5.2-10 Maximum Daily Regional Construction Emissions (Option 2)**

Construction Phase	Pollutants (lbs./day) <sup>1, 2,3,4</sup>					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Year 2026</b>						
Linear, paving	1	6	9	<1	<1	<1
Rough grading, utilities trenching, and buildings 1 and 2 construction   Sewer main and public storm drain site preparation (private)	8	65	89	<1	12	5
Rough grading, utilities trenching, and buildings 1 and 2 construction   Sewer main and public storm drain site utility trenching and pipeline construction (private)	8	65	91	<1	12	5
Buildings 1 and 2 construction   Sewer main and public storm drain site utility trenching and pipeline construction (private)	3	25	47	<1	6	2
<b>Year 2027</b>						
Buildings 1 and 2 construction   Sewer main and public storm drain site utility trenching and pipeline construction (private)	3	24	45	<1	6	2
Buildings 1 and 2 construction, paving, and architectural coating   Sewer main and public storm drain site utility trenching and pipeline construction (private)	69	37	70	<1	8	3
Buildings 1 and 2 construction, paving, architectural coating, fine grading, and finishing/landscaping   Sewer main and public storm drain site utility trenching and pipeline construction (private)	74	74	113	<1	14	6
Buildings 1 and 2 construction, paving, architectural coating, fine grading, and finishing/landscaping   Sewer main and storm drain site utility trenching, pipeline construction, and paving (private) <sup>5</sup>	75	80	123	<1	14	6
Buildings 1 and 2 construction, paving, architectural coating, fine grading, and finishing/landscaping   Sewer main and storm drain site paving (private)	74	70	110	<1	14	6
<b>Maximum Daily Construction Emissions</b>						
Maximum Daily Emissions	75	78	128	<1	17	6
South Coast AQMD Regional Construction Threshold	75	100	550	150	150	55
<b>Significant?</b>	<b>No</b>	No	No	No	No	No

Source: CalEEMod Version 2022.1. Highest winter or summer emissions are reported.

- Based on the preliminary information provided by the Applicant. Where specific information regarding proposed project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by South Coast AQMD of construction equipment.
- Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, and street sweeping with Rule 1186-compliant sweepers.
- Construction activities include any changes to overlapping construction activities, such as the start of another construction activity or the conclusion of a construction activity.
- Linear construction phases are associated with offsite roadway improvements. In addition, as the connection of the BESS use to the offsite interconnection facilities is assumed to utilize the same equipment as the offsite roadway improvements, construction of these transmission lines would not result in peak daily emissions higher than already modeled under the linear construction phases.
- The maximum daily construction VOC emissions for Option 2 is estimated to be 74.69 lb/day, which is under the South Coast AQMD threshold for VOC.

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The SoCAB is designated nonattainment for O<sub>3</sub> and PM<sub>2.5</sub> under the California and National AAQS, nonattainment for PM<sub>10</sub> under the California AAQS,<sup>17</sup> and nonattainment for lead (Los Angeles County only) under the National AAQS. According to South Coast AQMD methodology, any project that does not exceed or can be mitigated to less than the daily threshold values would not add significantly to a cumulative impact (South Coast AQMD 1993).

#### Option 1

As shown in Tables 5.2-9, the maximum daily emissions for NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> from construction-related activities would be less than their respective South Coast AQMD regional significance threshold values for Option 1. However, VOC emissions from construction activities overlapping with the proposed project's architectural coating phase would exceed the South Coast AQMD Regional construction threshold for Option 1.<sup>18</sup> Therefore, short-term air quality impacts from proposed project-related construction activities would exceed South Coast AQMD's threshold criteria for VOC, and impacts for Option 1 would be potentially significant.

#### Option 2

As shown in Tables 5.2-10, the maximum daily emissions for NO<sub>x</sub>, VOC, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> from construction-related activities would all be less than their respective South Coast AQMD regional significance threshold values for Option 2. Therefore, short-term air quality impacts from proposed project-related construction activities under Option 2 would be less than significant.

### Operation

Implementation of the proposed project would result in the development of 997,796 square feet of industrial space under Option 1 and a BESS facility and 704,070 square feet of industrial space under Option 2. Following full buildout, operation of the proposed project would generate criteria air pollutant emissions from area sources (e.g., landscaping equipment, architectural coating) and energy (e.g., natural gas used for heating). Operation of the BESS would contribute to a reduction of fossil fuel emissions by increasing the ability of the grid to store energy during the low use periods and provide power when needed during peak periods. This reduction in emissions at the grid scale would be an air quality benefit of Option 2, but the reduction cannot be accurately determined so it has not been quantified in this analysis.

As shown in Table 5.3-11, *Maximum Daily Regional Operation Emissions (Option 1)* and Table 5.3-12, *Maximum Daily Regional Operation Emissions (Option 2)*, project-related air pollutant emissions from daily operations would exceed the South Coast AQMD regional emissions thresholds for VOC and NO<sub>x</sub> under Option 1 and NO<sub>x</sub> under Option 2. The primary sources of long-term criteria air pollutant emissions would be project-generated passenger vehicle and truck trips as well as use of off-road equipment on-site such as yard trucks and forklifts. Option 2 would also include operation of the BESS on-site. However, it would not require natural gas use to

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<sup>17</sup> Portions of the SoCAB along SR-60 in Los Angeles, Riverside, and San Bernardino Counties are proposed as nonattainment for NO<sub>2</sub> under the California AAQS.

<sup>18</sup> The maximum daily construction VOC emissions for Option 2 is estimated to be 74.69 lb/day, which is less than the South Coast AQMD threshold for VOC.

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operate and thus would not generate criteria air pollutant emissions. Emissions of VOC and NO<sub>x</sub> that exceed the South Coast AQMD regional threshold would cumulatively contribute to the O<sub>3</sub> nonattainment designation of the SoCAB. Emissions of NO<sub>x</sub> that exceed the South Coast AQMD regional significance thresholds would also cumulatively contribute to the particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) nonattainment designations of the SoCAB. Therefore, the project would result in a potentially significant impact because it would significantly contribute to the nonattainment designations of the SoCAB.

**Table 5.2-11 Maximum Daily Regional Operation Emissions (Option 1)**

Source	Maximum Daily Emissions (lbs/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Off-Road	4	38	66	<1	2	1
Transport Refrigeration Units	21	18	2	<1	<1	<1
Mobile (Truck)	1	83	29	1	22	7
Mobile (Passenger)	7	5	84	<1	20	5
Area	31	<1	43	<1	<1	<1
Energy	<1	6	5	<1	<1	<1
<b>Total</b>	<b>64</b>	<b>150</b>	<b>229</b>	<b>1</b>	<b>44</b>	<b>14</b>
<b>South Coast AQMD Regional Threshold</b>	<b>55</b>	<b>55</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>550</b>
<b>Exceeds Threshold?</b>	<b>Yes</b>	<b>Yes</b>	No	No	No	No

Source: CalEEMod v2022.1. Highest winter or summer emissions are reported.  
Note: lbs = pounds.

**Table 5.2-12 Maximum Daily Regional Operation Emissions (Option 2)**

Source	Maximum Daily Emissions (lbs/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Off-Road	3	27	47	<1	1	1
Transport Refrigeration Units	22	19	2	<1	<1	<1
Mobile (Truck)	1	63	22	1	9	3
Mobile (Passenger)	4	3	53	<1	5	1
Area	22	<1	31	<1	<1	<1
Energy	<1	4	4	<1	<1	<1
<b>Total</b>	<b>52</b>	<b>116</b>	<b>157</b>	<b>1</b>	<b>16</b>	<b>5</b>
<b>South Coast AQMD Regional Threshold</b>	<b>55</b>	<b>55</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>550</b>
<b>Exceeds Threshold?</b>	No	<b>Yes</b>	No	No	No	No

Source: CalEEMod v2022.1. Highest winter or summer emissions are reported.  
Note: lbs = pounds.

*Level of Significance Before Mitigation:* Potentially significant.

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**Impact 5.2-3: The proposed project would not expose sensitive receptors to substantial pollutant concentrations during construction or operation. [Threshold AQ-3]**

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This impact analysis describes changes in localized impacts from short-term construction and long-term activities. The proposed project could expose sensitive receptors to elevated pollutant concentrations during construction activities if it would cause or contribute significantly to the elevated levels. Unlike the mass of emissions shown in the regional emissions analysis in Tables 5.2-9 and 5.2-10, which are described in pounds per day, localized concentrations refer to an amount of pollutant in a volume of air (ppm or  $\mu\text{g}/\text{m}^3$ ) and can be correlated to potential health effects.

This impact analysis also describes changes in localized impacts from long-term operational activities. The proposed project could expose sensitive receptors to elevated pollutant concentrations during operation of the proposed project if it would cause or contribute significantly to the elevated levels.

### Construction

#### *Construction-Phase Localized Significance Thresholds*

Screening-level LSTs (pounds per day) are the amount of project-related mass emissions at which localized concentrations (ppm or  $\mu\text{g}/\text{m}^3$ ) could exceed the AAQS for criteria air pollutants for which the SoCAB is designated nonattainment. They are based on the acreage disturbed and distance to the nearest sensitive receptor. Screening-level LSTs are based on the proposed project site size and distance to the nearest sensitive receptor. Thresholds are based on the California AAQS, which are the most stringent, established to provide a margin of safety in the protection of the public's health and welfare. They are designed to protect sensitive receptors most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise.

The nearest off-site sensitive receptors are the single-family residences to the southeast of the project site along Stewart Avenue. Tables 5.2-13, *Maximum Daily On-Site Localized Construction Emissions (Option 1)*, and 5.2-14, *Maximum Daily On-Site Localized Construction Emissions (Option 2)*, show the maximum daily construction emissions (pounds per day) generated during on-site overlapping construction activities compared with the South Coast AQMD's screening-level LSTs, for sensitive receptors within 82 feet (25 meters) for NO<sub>x</sub> and CO and 2,180 feet (244 meters) for PM<sub>10</sub> and PM<sub>2.5</sub>. These two distances represent residences at 2,180 feet, which are assumed to be exposed to construction emissions 24 hours a day, and employees of nearby businesses at 82 feet, who are not anticipated to be on-site 24 hours a day.

The on-site PM<sub>10</sub> and PM<sub>2.5</sub> emissions shown represent the total on-site particulate matter emissions from vehicle exhaust and fugitive dust. On-site NO<sub>x</sub> and CO emissions are from off-road equipment exhaust. As shown in these tables, construction of the proposed project under either Option 1 or Option 2 would not generate construction-related on-site emissions that would exceed the screening-level LSTs, and impacts would be less than significant.

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**Table 5.2-13 Maximum Daily On-Site Localized Construction Emissions (Option 1)**

	Pollutants (lbs./day) <sup>1,2,3,4,5</sup>			
	NO <sub>x</sub>	CO	PM <sub>10</sub> <sup>3</sup>	PM <sub>2.5</sub> <sup>3</sup>
<b>South Coast AQMD ≤1.00-Acre LST</b>	<b>89</b>	<b>623</b>	<b>266.98</b>	<b>133.47</b>
Linear, paving	6	8	0.27	0.25
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 1.31-Acre LST</b>	<b>101</b>	<b>726</b>	<b>269.31</b>	<b>135.69</b>
Building 1 construction 2024	1	1	0.50	0.46
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 1.50-Acre LST</b>	<b>108</b>	<b>788</b>	<b>270.70</b>	<b>137.02</b>
Linear, paving   Sewer main and storm drain site paving (public)	14	19	0.61	0.56
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 1.75-Acre LSTs</b>	<b>118</b>	<b>870</b>	<b>272.57</b>	<b>138.79</b>
Linear, paving   Sewer main and storm drain site utility trenching and pipeline construction (public)	18	23	0.71	0.65
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 1.81-Acre LSTs</b>	<b>121</b>	<b>273</b>	<b>273.03</b>	<b>139.24</b>
Building 1 construction 2025   Linear, grubbing & land clearing	2	2	0.64	0.59
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 2.06-Acre LSTs</b>	<b>130</b>	<b>969</b>	<b>274.90</b>	<b>140.98</b>
Buildings 2 and 3 construction 2026   Sewer main and public storm drain site utility trenching and pipeline construction (private)	19	25	0.71	0.66
Buildings 2 and 3 construction 2027   Sewer main and storm drain site utility trenching and pipeline construction (private)	26	34	0.95	0.87
Buildings 2 and 3 construction, paving, and architectural coating   Sewer main and storm drain site utility trenching and pipeline construction (private)	27	36	1.01	0.93
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 2.25-Acre LSTs</b>	<b>134</b>	<b>1,018</b>	<b>276.31</b>	<b>142.22</b>
Linear, paving   Sewer main and storm drain site utility trenching, pipeline construction, and paving (public)	24	31	0.98	0.90
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 2.31-Acre LSTs</b>	<b>136</b>	<b>1,034</b>	<b>276.78</b>	<b>142.63</b>
Building 1 construction 2024 and utilities trenching	25	27	1.14	1.05
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 3.75-Acre LSTs</b>	<b>172</b>	<b>1,408</b>	<b>287.58</b>	<b>152.14</b>
Building 1 construction 2025   Linear, grubbing & land clearing   Sewer main and storm drain site preparation (public)	25	27	1.94	1.11
<b>Exceeds LST?</b>	No	No	No	No

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**Table 5.2-13 Maximum Daily On-Site Localized Construction Emissions (Option 1)**

	Pollutants (lbs./day) <sup>1,2,3,4,5</sup>			
	NO <sub>x</sub>	CO	PM <sub>10</sub> <sup>3</sup>	PM <sub>2.5</sub> <sup>3</sup>
<b>South Coast AQMD 4.25-Acre LSTs</b>	<b>184</b>	<b>1,538</b>	<b>291.34</b>	<b>155.45</b>
Linear, drainage, utilities, & subgrade   Sewer main and storm drain site utility trenching and pipeline construction (public)	33	35	2.31	1.29
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD ≥5.00-Acre LSTs</b>	<b>203</b>	<b>1,733</b>	<b>296.98</b>	<b>160.41</b>
Building 1 construction ≥2025   Linear, grading & excavation   Sewer main and storm drain site utility trenching and pipeline construction (public)	48	54	3.25	1.98
Building 1 construction 2025, paving, and architectural coating   Linear, grading & excavation   Sewer main and storm drain site utility trenching and pipeline construction (public)	56	65	3.63	2.33
Linear, grading & excavation   Sewer main and storm drain site utility trenching and pipeline construction (public)	37	41	2.82	1.58
Rough grading, utilities trenching, and buildings 2 and 3 construction 2026   Sewer main and storm drain site preparation (private)	58	65	6.64	3.73
Rough grading, utilities trenching, and buildings 2 and 3 construction 2026   Sewer main and storm drain site utility trenching and pipeline construction (private)	58	66	5.93	3.58
Buildings 2 and 3 construction, paving, architectural coating, fine grading, and finishing/landscaping   Sewer main and storm drain site utility trenching and pipeline construction (private)	63	77	6.11	3.74
Buildings 2 and 3 construction, paving, architectural coating, fine grading, and finishing/landscaping   Sewer main and storm drain site utility trenching, pipeline construction, and paving (private)	69	85	6.34	3.95
Buildings 2 and 3 construction, paving, architectural coating, fine grading, and finishing/landscaping   Sewer main and storm drain site paving (private)	60	73	6.04	3.67
<b>Exceeds LST?</b>	No	No	No	No

Sources: CalEEMod v2022.1; South Coast AQMD 2008, 2011. Highest winter or summer emissions are reported.

<sup>1</sup> In accordance with South Coast AQMD methodology, only on-site stationary sources and mobile equipment occurring on the project site are included in the analysis. LSTs are based on sensitive receptors within 82 feet (25 meters) for NO<sub>x</sub> and CO and 2,180 feet (244 meters) for PM<sub>10</sub> and PM<sub>2.5</sub>.

<sup>2</sup> Based on information provided or verified by the Applicant. Where specific information regarding project-related construction activities or processes was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by the South Coast AQMD.

<sup>3</sup> Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, and street sweeping with Rule 1186-compliant sweepers.

<sup>4</sup> Construction activities include any changes to overlapping construction activities, such as the start of another construction activity or the conclusion of a construction activity.

<sup>5</sup> Linear construction phases are associated with off-site roadway improvements.

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**Table 5.2-14 Maximum Daily On-Site Localized Construction Emissions (Option 2)**

	Pollutants (lbs./day) <sup>1,2,3,4,5</sup>			
	NO <sub>x</sub>	CO	PM <sub>10</sub> <sup>3</sup>	PM <sub>2.5</sub> <sup>3</sup>
<b>South Coast AQMD ≤1.00-Acre LST</b>	<b>89</b>	<b>623</b>	<b>266.98</b>	<b>133.47</b>
Linear, paving	6	8	0.27	0.25
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 1.31-Acre LST</b>	<b>101</b>	<b>726</b>	<b>269.31</b>	<b>135.69</b>
Option 2 BESS construction 2024	1	1	0.50	0.46
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 1.50-Acre LST</b>	<b>108</b>	<b>788</b>	<b>270.70</b>	<b>137.02</b>
Linear, paving   Sewer main and public storm drain paving (public)	14	19	0.61	0.56
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 1.75-Acre LSTs</b>	<b>118</b>	<b>870</b>	<b>272.57</b>	<b>138.79</b>
Linear, paving   Sewer main and public storm drain utility trenching and pipeline construction (public)	18	23	0.71	0.65
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 1.81-Acre LSTs</b>	<b>121</b>	<b>273</b>	<b>273.03</b>	<b>139.24</b>
Option 2 BESS construction 2025   Linear, grubbing & land clearing	2	2	0.64	0.59
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 2.06-Acre LSTs</b>	<b>130</b>	<b>969</b>	<b>274.90</b>	<b>140.98</b>
Buildings 1 and 2 construction 2026   Sewer main and public storm drain utility trenching and pipeline construction (private)	19	25	0.71	0.66
Buildings 1 and 2 construction 2027   Sewer main and public storm drain utility trenching and pipeline construction (private)	19	25	0.64	0.59
Buildings 1 and 2 construction 2027, paving, and architectural coating   Sewer main and public storm drain utility trenching and pipeline construction (private)	31	41	1.10	1.02
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 2.25-Acre LSTs</b>	<b>134</b>	<b>1,018</b>	<b>276.31</b>	<b>142.22</b>
Linear, paving   Sewer main and public storm drain utility trenching, pipeline construction, and paving (public)	24	31	0.98	0.90
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 2.31-Acre LSTs</b>	<b>136</b>	<b>1,034</b>	<b>276.78</b>	<b>142.63</b>
Option 2 BESS site utility trenching and construction	25	27	1.14	1.05
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 3.75-Acre LSTs</b>	<b>172</b>	<b>1,408</b>	<b>287.58</b>	<b>152.14</b>
Option 2 BESS construction 2025   Linear, grubbing & land clearing   Sewer main and public storm drain site preparation (public)	25	27	1.94	1.11

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**Table 5.2-14 Maximum Daily On-Site Localized Construction Emissions (Option 2)**

	Pollutants (lbs./day) <sup>1,2,3,4,5</sup>			
	NO <sub>x</sub>	CO	PM <sub>10</sub> <sup>3</sup>	PM <sub>2.5</sub> <sup>3</sup>
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 4.25-Acre LSTs</b>	<b>184</b>	<b>1,538</b>	<b>291.34</b>	<b>155.45</b>
Linear, drainage, utilities, & subgrade   Sewer main and public storm drain utility trenching and pipeline construction (public)	33	35	2.31	1.29
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD ≥5.00-Acre LSTs</b>	<b>203</b>	<b>1,733</b>	<b>296.98</b>	<b>160.41</b>
BESS construction 2025   Linear, grading & excavation   Sewer main and public storm drain utility trenching and pipeline construction (public)	48	54	3.25	1.98
BESS construction 2025 and paving   Linear, grading & excavation   Sewer main and public storm drain utility trenching and pipeline construction (public)	55	64	3.60	2.30
Linear, grading & excavation   Sewer main and public storm drain utility trenching and pipeline construction (public)	37	41	2.82	1.58
Rough grading, utilities trenching, and buildings 1 and 2 construction 2026   Sewer main and public storm drain site preparation (private)	58	65	6.64	3.73
Rough grading, utilities trenching, and buildings 1 and 2 construction 2026   Sewer main and public storm drain utility trenching and pipeline construction (private)	58	66	5.93	3.58
Buildings 1 and 2 construction 2027, paving, architectural coating, fine grading, and finishing/landscaping   Sewer main and public storm drain utility trenching and pipeline construction (private)	67	82	6.20	3.83
Buildings 1 and 2 construction 2027, paving, architectural coating, fine grading, and finishing/landscaping   Sewer main and storm drain utility trenching, pipeline construction, and paving (private)	73	91	6.43	4.04
Buildings 1 and 2 construction 2027, paving, architectural coating, fine grading, and finishing/landscaping   Sewer main and storm drain paving (private)	64	79	6.13	3.76
<b>Exceeds LST?</b>	No	No	No	No

Sources: CalEEMod Version 2022.1, and South Coast AQMD 2008 and 2011. Highest winter or summer emissions are reported.

<sup>1</sup> In accordance with South Coast AQMD methodology, only on-site stationary sources and mobile equipment occurring on the project site are included in the analysis. LSTs are based on sensitive receptors within 82 feet (25 meters) for NO<sub>x</sub> and CO and 2,180 feet (244 meters) for PM<sub>10</sub> and PM<sub>2.5</sub>.

<sup>2</sup> Based on information provided or verified by the Applicant. Where specific information regarding project-related construction activities or processes was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by the South Coast AQMD.

<sup>3</sup> Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, and street sweeping with Rule 1186-compliant sweepers.

<sup>4</sup> Construction activities include any changes to overlapping construction activities, such as the start of another construction activity or the conclusion of a construction activity.

<sup>5</sup> Linear construction phases are associated with offsite roadway improvements.

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*Construction Health Risk*

The proposed project would elevate concentrations of TACs (i.e., DPM) in the vicinity of sensitive land uses during temporary construction activities that would use off-road equipment operating on-site, and at different levels depending on the type of activity (e.g., few to none during installation of utilities, and more during grading activities). Construction of the proposed project would occur in two parts—the first would start in July 2024 and run through December 2025; the second would begin in September 2026 and would be completed in August 2027.

The nearest air-quality-sensitive receptors to the project site are park users at Kare Youth League Irwindale, 300 feet to the north, and the single-family residences 2,150 feet to the southeast. A site-specific construction HRA of TACs was prepared to quantify potential health risk emissions during construction (see Appendix D2). The latest OEHHA guidance was used to determine risks to residential receptors (OEHHA 2015). For Kare Youth League park users, risk exposure parameters were tailored for children ages 2 to 16 and included elevated breathing rates due to exercise and a daily exposure of 4 hours per day. The results of the analysis are shown in Table 5.2-15, *Construction Risk Summary*, and demonstrates that there would be no exceedance of identified thresholds.

**Table 5.2-15 Construction Health Risk Summary**

Site Option	Receptor	Cancer Risk (per million)	Chronic Hazards
Option 1	Maximum Exposed Individual Resident	0.3	0.001
	Maximum Exposed Receptor – Sports Park	0.6	0.019
Option 2	Maximum Exposed Individual Resident	0.3	0.001
	Maximum Exposed Receptor – Sports Park	0.6	0.019
South Coast AQMD Threshold		10	1.0
Exceeds Threshold?		<b>No</b>	<b>No</b>

Source: Appendix D2.

The results of the HRA are based on the maximum receptor concentration over the entire construction exposure duration for receptors.

- Cancer risk for the maximum exposed off-site sports park receptor from construction activities related to the proposed project was calculated at 0.6 in a million for both Options 1 and 2, which would not exceed the 10 in a million significance threshold.
- Cancer risk for the MEIR (maximum exposed individual resident) from construction activities would be 0.3 in a million for both Options 1 and 2, which would not exceed the 10 in a million significance threshold.

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- For noncarcinogenic effects, the chronic hazard index for each toxicological endpoint totaled less than one for all the sensitive receptors for both Options 1 and 2. Therefore, chronic noncarcinogenic hazards are less than significant.

Because cancer risks and noncarcinogenic hazards for the maximum exposed sports park receptor and MEIR would not exceed the South Coast AQMD significance thresholds, the impacts of construction activities associated with the proposed project on health risk are less than significant.

### Operation

#### Operational Phase LSTs

The screening-level LSTs are the amount of project-related stationary and area sources of emissions at which localized concentrations (ppm or  $\mu\text{g}/\text{m}^3$ ) would exceed the ambient air quality standards for criteria air pollutants for which the SoCAB is designated a nonattainment area. Land uses that have the potential to generate substantial stationary sources of emissions or would require a permit from South Coast AQMD include industrial land uses, such as chemical processing, and warehousing operations where substantial truck idling could occur on-site. On-site emissions include truck maneuvering and idling, TRUs, and diesel-powered forklifts and yard trucks. Table 5.2-16, *Localized On-Site Operational Emissions (Option 1)*, and Table 5.2-17, *Localized On-Site Operational Emissions (Option 2)*, show localized maximum daily operational emissions. As shown in the tables, on-site project-related operational emissions would not exceed the screening-level LSTs. Therefore, localized criteria air pollutant emissions impacts from project-related operations would be less than significant.

**Table 5.2-16 Localized On-Site Operational Emissions (Option 1)**

Source	Pollutants (lbs/day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Area Sources	<1	43	0.06	0.08
Off-Road Equipment <sup>1,2</sup>	38	66	1.55	1.42
On-Site Truck Travel <sup>3,4</sup>	4	1	0.97	0.30
Truck Idling <sup>3</sup>	8	11	0.00	0.00
Transport Refrigeration Units <sup>5,6</sup>	18	2	0.21	0.20
Maximum Daily On-Site Operation Emissions	68	123	2.79	2.00
South Coast AQMD Screening-Level LST	<b>203</b>	<b>1,733</b>	<b>70.90</b>	<b>38.42</b>
<b>Exceeds Screening-Level LST?</b>	No	No	No	No

Source: CalEEMod v2022.1; South Coast AQMD 2008.

Notes: In accordance with South Coast AQMD methodology, only on-site stationary sources and mobile equipment occurring on the proposed project site are included in the analysis. Operational LSTs are based on sensitive receptors within 82 feet (25 meters) for NO<sub>x</sub> and CO and 2,180 feet (244 meters) for PM<sub>10</sub> and PM<sub>2.5</sub> in SRA 9.

<sup>1</sup> Based on 53 diesel-powered forklifts and 4 diesel-powered yard trucks at the facility operating for eight hours per day.

<sup>2</sup> Based on calendar year 2027 emission rates for a 100-horsepower industrial forklift and 175-horsepower port yard tractor derived from OFFROAD2021 v1.0.4.

<sup>3</sup> Based on year 2027 emission rates derived EMFAC2021 v1.0.2 and CalEEMod methodology.

<sup>4</sup> Based on the proportion of distance traveled onsite compared to the overall distance traveled. It is anticipated that each truck would travel approximately 1.79 miles onsite on average.

<sup>5</sup> Based on 107 trucks with TRUs per day and 120 mins of idling per TRU per day.

<sup>6</sup> Based on calendar year 2027 aggregated Instate Trailer TRU emission rates obtained from OFFROAD2021 v1.0.4.

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**Table 5.2-17 Localized On-Site Operational Emissions (Option 2)**

Source	Pollutants (lbs/day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Area Sources	<1	31	0.04	0.05
Off-Road Equipment <sup>1,2</sup>	27	47	1.08	1.00
On-Site Truck Travel <sup>3,4</sup>	3	1	0.41	0.13
Truck Idling <sup>3</sup>	6	8	0.00	0.00
Transport Refrigeration Units <sup>5,6</sup>	19	2	0.23	0.21
Maximum Daily On-Site Operation Emissions	55	88	1.76	1.39
South Coast AQMD Screening-Level LST	<b>203</b>	<b>1,733</b>	<b>70.90</b>	<b>38.42</b>
<b>Exceeds Screening-Level LST?</b>	No	No	No	No

Source: CalEEMod v2022.1; South Coast AQMD 2008.

Notes: In accordance with South Coast AQMD methodology, only on-site stationary sources and mobile equipment occurring on the proposed project site are included in the analysis. Operational LSTs are based on sensitive receptors within 82 feet (25 meters) for NO<sub>x</sub> and CO and 2,180 feet (244 meters) for PM<sub>10</sub> and PM<sub>2.5</sub> in SRA 9.

<sup>1</sup> Based on 37 diesel-powered forklifts and three diesel-powered yard trucks at the facility operating for eight hours per day.

<sup>2</sup> Based on calendar year 2027 emission rates for a 100-horsepower industrial forklift and 175-horsepower port yard tractor derived from OFFROAD2021 v1.0.4.

<sup>3</sup> Based on year 2027 emission rates derived EMFAC2021 v1.0.2 and CalEEMod methodology.

<sup>4</sup> Based on the proportion of distance traveled onsite compared to the overall distance traveled. It is anticipated that each truck would travel approximately 1.79 miles onsite on average.

<sup>5</sup> Based on 115 trucks with TRUs per day and 120 mins of idling per TRU per day.

<sup>6</sup> Based on calendar year 2027 aggregated Instate Trailer TRU emission rates obtained from OFFROAD2021 v1.0.4.

*Operational Phase Toxic Air Contaminants*

The South Coast AQMD requires an analysis of TACs when the project generates emissions proximate to sensitive receptors in order to ensure that the proposed project does not expose sensitive receptors to substantial pollutant concentrations. Land uses that generate more than 100 truck trips per day have the potential to substantially increase TAC concentrations and health risks at off-site sensitive land uses within 1,000 feet of the facility (CARB 2005).

An operational HRA was prepared for the proposed project and is provided in Appendix D2. Operation of the proposed project would generate DPM emissions from diesel truck activity (truck maneuvering and idling), TRUs, and diesel-fueled off-road equipment (i.e., forklifts and yard trucks) in proximity to the same sensitive receptors evaluated in the construction HRA (i.e., residents to the southeast and Youth Sports Park users to the north). For the operational HRA, all forklifts were assumed to be diesel fueled. Typically, industrial warehousing projects utilize nondiesel fueled forklifts such as propane, natural gas, or electricity, which emit less criteria pollutants. Therefore, the operational HRA presents a very conservative estimate of potential health risks to the surrounding community.

The EPA AERMOD air dispersion modeling program and CARB's Hotspots Analysis and Reporting Program (HARP2) Risk Assessment Standalone Tool were used to estimate excess lifetime cancer risks and chronic noncancer hazard indices at the MEIR (CARB 2022). For Kare Youth League park users, risk exposure parameters were tailored for children ages 2 to 16 and included elevated breathing rates due to exercise and a daily exposure of 4 hours per day. The results of the operational HRA are provided in Table 5.2-18, *Operational Health Risk Assessment Results*.

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**Table 5.2-18 Operational Health Risk Assessment Results**

Site Options	Receptor	Cancer Risk (per million)	Chronic Hazard Index
Option 1	Maximum Exposed Individual Resident	5.9	0.002
	Maximum Exposed Receptor – Sports Park	1.4	0.008
Option 2	Maximum Exposed Individual Resident	4.4	0.001
	Maximum Exposed Receptor – Sports Park	1.2	0.007
South Coast AQMD Threshold		10	1.0
<b>Exceeds Threshold?</b>		<b>No</b>	<b>No</b>
Sources: Appendix D2.			

As shown in the table, carcinogenic risks are below the significance threshold value of 10 in a million for the MEIR and for the maximum exposed sports park user in vicinity of the project site for both Option 1 and Option 2. For noncarcinogenic effects, the chronic hazard index identified for each toxicological endpoint totaled less than one for all sensitive receptors. Thus, chronic noncarcinogenic hazards are below the significance threshold. Therefore, the project would not expose off-site sensitive receptors to substantial concentrations of air pollutant emissions during project operation, and impacts would be less than significant.

#### *Battery Energy Storage System (Option 2)*

Option 2 would include a BESS. No TACs are emitted during normal operation of a BESS. However, in the unlikely event that a thermal runaway event occurs (defined as a fire within a container due to battery malfunction, elevated temperatures, and battery combustion), there is potential for TAC emissions .

BESS facilities must meet the requirements of the National Fire Protection Association (NFPA), which issues standards for addressing energy storage systems (NFPA 2022). The proposed BESS containers would be equipped with fire monitoring systems, controls, and cooling units to keep the batteries at optimal operating temperatures. The fire monitoring systems consist of smoke and heat sensors, gas detectors, alarms, remote monitoring, and an NFPA69-compliant explosion prevention system. Each fire protection system would have a signal that would trigger core power-down during fire, electrical fire, overheating, or other issues. The entire project power-down would occur automatically during electrical fault conditions (e.g., high-voltage, high-frequency, ground fault). In addition, the proposed BESS would be equipped with breakers that could be opened manually to power down different equipment or the proposed project.

The Los Angeles County Fire Department (LACFD) is experienced with BESS projects. As of June 2023, 14 BESS plants are in operation in LA County (356 megawatts), and 8 are in late-stage development or construction (641 megawatts). LACFD is very familiar with BESS technology and will be responsible for plan checking and approvals.

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The following installation and operations requirements would help ensure fire safety related to the BESS:

- **Fire Hydrants.** Per LACFD regulations, the project design is expected to include internal hydrants located to ensure a maximum hose pull of 150 feet. This is a shorter distance than is typical for a warehouse building and allows for a faster response time for defensive firefighting.
- **Training.** The site will include one or two days of fire department training with a qualified fire and battery safety engineer.
- **Hazard Mitigation Plan / Emergency Response Plan.** The site will include a formal hazard mitigation analysis and site-level emergency response plan generated by a qualified fire safety engineer for the specific design of the project. This will be reviewed and approved by LACFD during the building permit process.
- **Fire Suppression Systems.** Current standards dictate a dry standpipe connection to the BESS containers. A standpipe is a port in the BESS container that allows a fire hose to be connected to the container. Water has proven to be the best option for fighting lithium-ion battery fires. With the provision of a dry standpipe, the local fire department can choose to aggressively contain the fire by flooding the system with water.
- **Installation.** Each module is tested at the manufacturer's facility and inspected for damage at the project site. Once installed and in operational mode, the battery management system is calibrated for the specific use/case. The battery management system protects the battery cells, modules, and racks from current, voltage, and temperature design limit deviations by performing an emergency shutdown.

The specific battery cell vendor is not known at the time of CEQA evaluation. Therefore, a review of previous reports addressing BESS hazardous releases was conducted to determine representative TAC emissions for a thermal runaway event of lithium-ion battery systems. In 2016, the New York State Energy Research and Development Authority and Consolidated Edison evaluated gas emissions from six lithium battery types from a BESS fire event (Consolidated Edison 2017). The average TAC emission rates from the study were:

- Carbon monoxide (CO) =  $2.0 \times 10^{-4}$  grams per second per battery cell (g/s/cell)
- Hydrogen chloride (HCL) =  $2.4 \times 10^{-4}$  g/s/cell
- Hydrogen fluoride (HF) =  $1.7 \times 10^{-4}$  g/s/cell
- Hydrogen cyanide (HCN) =  $1.7 \times 10^{-4}$  g/s/cell

The emission rates were for a 30-minute release, which the study considers a conservative estimate of how long a fire would burn uncontrolled before first responders arrived. Additionally, the Consolidated Edison study notes that the failure probability of multiple battery racks from a thermal runaway event is low due to fire suppression systems and recommends limiting TAC emission estimates to the failure of 1.5 racks.

TAC emissions from a thermal runaway event for the Option 2 BESS were determined to be highly unlikely in the event of failure and combustion of all batteries in a single container and for a 60-minute release. As previously stated, the BESS would not emit TACs during normal operations, and a full HRA is not required. However, as a precautionary measure, health risks were determined for nearby sensitive receptors in the case of a battery cell malfunction and thermal runaway event. A screening level health risk evaluation was conducted using South Coast AQMD's Facility Prioritization Procedure (South Coast AQMD 2020). The prioritization

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methodology is the initial tool used by South Coast AQMD to screen potential facilities for public health impacts due to TAC emissions, per the Air Toxics “Hot Spots” Information and Assessment Act of 1987 (AB 2588).

The South Coast AQMD designates high, intermediate, and low priority facilities by scores based on the toxicity and quantity of facility emissions and the proximity to potential sensitive receptors such as hospitals, schools, daycare centers, and residences. The prioritization thresholds are:

- Priority Score (PS) > 10 = High Priority, requires submittal of air toxics inventory report and voluntary risk reduction plan
- $1 < PS \leq 10$  = Intermediate Priority, requires air toxics inventory report every 4 years
- $PS \leq 1$  = Low Priority, exempt from reporting

Only acute (1-hour) exposures were evaluated for a thermal runaway event since long-term TAC exposure would not result from this scenario. The analysis assumes emissions would be within the container until opened by the fire department or other emergency responders. The prioritization method incorporates TAC emission rates, toxicity factors promulgated by the OEHHA for each identified pollutant, air dispersion modeling parameters, and proximity of sensitive receptors to determine the facility score. The nearest sensitive receptors to the BESS area of the project are the Kare Youth League park users 1,500 feet (570 meters) to the north and the residences 2,200 feet (670 meters) to the southeast. The prioritization score incorporates acute health impacts determined for the inhalation pathway based on the 1-hour reference exposure level (REL) for each identified TAC.

The results of the BESS health risk screening are provided in Table 5.2-19, *BESS Health Risk Screening Results*. The total score for a thermal runaway event was calculated as 0.002, which would make the BESS a low priority or low risk facility ( $PS \leq 1$ ). Therefore, the BESS would not expose sensitive receptors to substantial pollutant concentrations, and impacts are considered less than significant.

**Table 5.2-19 BESS Health Risk Screening Results**

Toxic Air Contaminant	Emission Rate for Single Battery, 30-min release, g/s/cell	Emission Rate for Container <sup>1)</sup>		Acute REL $\mu\text{g}/\text{m}^3$	Prioritization Score <sup>2)</sup>
		g/s	lb/hr		
Carbon Monoxide	$2.00 \times 10^{-4}$	$1.92 \times 10^{-2}$	$1.52 \times 10^{-1}$	23,000	$1.59 \times 10^{-5}$
Hydrogen Chloride	$2.36 \times 10^{-4}$	$2.27 \times 10^{-2}$	$1.80 \times 10^{-1}$	2,100	$2.05 \times 10^{-4}$
Hydrogen Fluoride	$1.74 \times 10^{-4}$	$1.67 \times 10^{-2}$	$1.33 \times 10^{-1}$	240	$1.32 \times 10^{-3}$
Hydrogen Cyanide	$1.74 \times 10^{-4}$	$1.67 \times 10^{-2}$	$1.33 \times 10^{-1}$	340	$9.35 \times 10^{-4}$
<b>Total Score</b>					<b>0.002</b>
Prioritization Category					Low priority

Notes: grams per second (g/s); pounds per hour (lb/hr); micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )

<sup>1)</sup> Assumed emission rate for 60-minute release event for all 48 battery cells (8 racks) in a container.

<sup>2)</sup> Prioritization Score calculated by multiplying the hourly emission rate in lb/hr by the receptor proximity adjustment factor (2.40 for the Azusa Meteorological Station, angle 30 degrees, 500-meter distance) and dividing by the acute REL.

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### Combined Construction Phase and Operational Phase Toxic Air Contaminants

Sensitive receptors proximate to the project site would be exposed to elevated levels of air pollutants during construction activities and subsequently during operational activities. The combined health risks from project-related construction and operational activities for the maximum exposed receptors can be determined in several ways. The most conservative calculation for combining health risks is to sum the highest predicted construction and operational health risks for each receptor type. When summing the cancer risks for the MEIR in Tables 5.2-15 and 5.2-18, total cancer risks from project-related construction and operational activities would be 6.2 in a million for Option 1 and 4.7 in a million for Option 2, which are below the threshold value of 10 per million. For noncarcinogenic effects, the chronic hazard index identified for each toxicological endpoint totaled less than one at the MEIR from each site option. Similarly, for the maximum exposed sports park user, the combined construction plus operational cancer risk is 2 in a million for Option 1 and 1.8 in a million for Option 2 and would not exceed South Coast AQMD's threshold. Thus, the project would not have a significant health risk impact to nearby sensitive receptors from construction and subsequent operational activities.

### Carbon Monoxide Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9.0 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to AAQS is typically demonstrated through an analysis of localized CO concentrations. Hot spots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. The SoCAB has been designated in attainment of both the National and California AAQS for CO. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection to more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited—to generate a significant CO impact (BAAQMD 2017). Full buildout of the proposed project would result in up to 249 AM peak hour trips and 262 PM peak hour trips under Option 1 and 176 AM peak hour trips and 184 PM peak hour trips under Option 2. In addition, as seen in Figure 6-2 and Figure 6-3 of the Traffic Impact Analysis (Appendix L2), both options for the proposed project would not produce the volume of traffic required (i.e., 24,000 to 44,000 peak hour vehicle trips) to generate a CO hotspot (Iteris 2023). Therefore, implementation of the proposed project would not have the potential to substantially increase CO hotspots at intersections in the vicinity of the project area, and impacts would be less than significant.

*Level of significance Before Mitigation:* Less than significant impact.

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#### **Impact 5.2-4: The proposed project would result in other emissions that would adversely affect a substantial number of people. [Threshold AQ-4]**

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The threshold for odor is if a project creates an odor nuisance pursuant to South Coast AQMD Rule 402, Nuisance, which states:

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number

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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. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

#### Construction

During construction activities, construction equipment exhaust and application of asphalt and architectural coatings would temporarily generate odors. Any construction-related odor emissions would be temporary and intermittent. Additionally, noxious odors would be confined to the immediate vicinity of the construction equipment. By the time such emissions reached any sensitive receptor sites, they would be diluted to well below any level of air quality concern. Furthermore, short-term construction-related odors are expected to cease upon the drying or hardening of odor-producing materials. Therefore, impacts associated with construction-generated odors are considered less than significant.

#### Operation

The type of facilities that are considered to have objectionable odors include wastewater treatment plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. The types of businesses accommodated under the proposed project could result in these types of uses: asphalt plants, automobile and truck repair garages, bakeries and confectionaries (manufacturing and wholesale), bottling plants, computer and electronic parts manufacturing, concrete manufacturing, distribution warehousing and e-commerce fulfillment centers for dry and frozen goods, machinery manufacturing, and product assembly. While these and other types of industrial land uses associated with the proposed project would be required to comply with South Coast AQMD Rule 402, additional measures may be necessary to prevent an odor nuisance. Therefore, certain types of industrial land uses that could be associated with the proposed project may generate potentially significant odor impacts to a substantial number of people.

***Level of Significance Before Mitigation:*** Potentially significant.

### 5.2.5 Cumulative Impacts

In accordance with South Coast AQMD's methodology, any project that produces a significant project-level regional air quality impact in an area that is in nonattainment contributes to the cumulative impact. The greatest source of emissions in the SoCAB is mobile sources. Due to the extent of the area potentially impacted from cumulative project emissions (i.e., the SoCAB), South Coast AQMD considers a project cumulatively significant when project-related emissions exceed the South Coast AQMD regional emissions thresholds shown in Table 5.2-5. No significant cumulative impacts were identified with regard to CO hotspots.

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#### Construction

The SoCAB is designated nonattainment for O<sub>3</sub> and PM<sub>2.5</sub> under the California and National AAQS, nonattainment for PM<sub>10</sub> under the California AAQS,<sup>19</sup> and nonattainment for lead (Los Angeles County only) under the National AAQS. Construction of cumulative projects will further degrade the regional and local air quality. Air quality will be temporarily impacted during construction activities. Construction activities for both Option 1 and Option 2 of the proposed project would not exceed their screening-level LSTs. Construction of the proposed project would also not exceed the South Coast AQMD cancer risk or chronic hazards thresholds. As shown in Table 5.2-9 and Table 5.2-10, the proposed project's short-term emissions would exceed the South Coast AQMD regional emissions thresholds for VOC under Option 1 but not Option 2. However, with implementation of Mitigation Measure AQ-1, VOC emissions for Option 1 would be reduced below threshold and construction-related cumulative impacts would be reduced to less than significant.

#### Operation

##### *Criteria Air Pollutants*

For operational air quality emissions, any project that does not exceed or can be mitigated to less than the daily regional threshold values are not considered by South Coast AQMD to be a substantial source of air pollution and does not make a cumulatively considerable contribution to a cumulative air quality impact. While operational activities would not exceed their screening-level LSTs and would not substantially increase CO hotspots at intersections in the vicinity of the project area, they would result in emissions in excess of the South Coast AQMD regional emissions thresholds for VOC and NO<sub>x</sub> under Option 1 and NO<sub>x</sub> under Option 2. The cumulative implementation of Option 2 in conjunction with other energy storage facilities throughout California's electrical grid would help reduce criteria air pollutants by increasing use of renewable energy generation sources and reducing dependency on fossil-fuel-burning sources of power. This beneficial effect cannot be accurately determined and therefore has not been quantified.

##### *Toxic Air Contaminants*

The MATES V study showed that cancer risk in the SoCAB decreased to 454 in a million in 2018 from 997 in a million in 2012 in the MATES IV study.<sup>20</sup> Within the vicinity of the proposed project site, in ZIP Code 91706, the residential cancer risk from sources of TACs in the area is 563 per million (i.e., background risk), which is higher than 84 percent of the South Coast AQMD population (South Coast AQMD 2023b). Air toxics generated by the proposed project would have an operational incremental cancer risk of 5.9 per million under Option 1 and 4.4 per million under Option 2.

Based on its report, "White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution," South Coast AQMD does not currently have separate project-level and cumulative significance thresholds (South Coast AQMD 2003a, 2003b). Consequently, the South Coast AQMD threshold of 10 in a

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<sup>19</sup> Portions of the SoCAB along SR-60 in Los Angeles, Riverside, and San Bernardino counties are proposed nonattainment for NO<sub>2</sub> under the California AAQS.

<sup>20</sup> The previous MATES studies quantified the cancer risks based on the inhalation pathway only. MATES V includes information on the chronic noncancer risks from inhalation and non-inhalation pathways for the first time.

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million would address the project’s cumulative contribution to regional air quality problems. However, this EIR considers the project’s incremental effect on health risk in light of the elevated background risk identified in MATES V and cumulative approved and pending projects in the vicinity of the project site.

Several approved or pending projects within two miles of the proposed project are listed in Table 4-1 of Chapter 4, *Environmental Setting*. While individually each project may not produce a significant impact, the cumulative local and regional impact of all the approved and pending industrial or large-scale projects to the surrounding area remains unclear. Table 5.2-20, *Health Risk Summary for City of Irwindale Approved and Pending Projects Within Two Miles of the Proposed Project*, provides the results of the operational HRAs conducted for the approved or pending projects.

**Table 5.2-20 Health Risk Summary for City of Irwindale Approved and Pending Projects Within Two Miles of the Proposed Project**

ID	Project	Sensitive Receptors	Residential Cancer Risk
<b>Proposed Project</b>			
Background Cancer Risk in the City of Irwindale			563 per million
Proposed Project (IRW-04)	Irwindale Gateway Project – Option 1	Residents 2,180 feet southeast of project	6.2 per million
Proposed Project (IRW-04)	Irwindale Gateway Project – Option 2	Residents 2,180 feet southeast of project	4.7 per million
<b>City of Irwindale Approved Projects</b>			
IRA <sup>1</sup>	5175 Vincent Avenue Project <sup>1</sup> 545,737 SF Industrial	Residents 75 feet east of project	3.7 per million
IRA <sup>2</sup>	The Park @ Live Oak Specific Plan <sup>2</sup> 78.3-acre Industrial Park/Retail	Residents 1,900 feet north of project	0.5 per million
IRA <sup>3</sup>	City of Hope Campus Plan <sup>3</sup> Medical Facility	Residents 50 feet west of project	5.1 per million (for construction)
IRA <sup>4</sup>	13131 Los Angeles Street <sup>4</sup> 528,710 SF Industrial	Residents 670 feet east of project	2.7 per million
IRA <sup>5</sup>	2200 Arrow Highway – Materials Recovery Facility and Transfer Station; 17.22-acre	Residents 450 feet south of project	6.6 per million
<b>City of Irwindale Pending Projects</b>			
IRP <sup>1</sup>	500 Speedway Drive – Speedway Commerce Center Specific Plan; 63.3 acre	Residents over 2,000 feet to north and southeast	pending

Note: SF = square feet

<sup>1</sup> City of Irwindale, 2021. *Draft Environmental Impact Report for 5175 Vincent Avenue Project*, dated February 2021. Prepared by De Novo Planning Group.

<sup>2</sup> Urban Crossroads, 2018. *Mobile Source Health Risk Assessment for The Park @ Live Oak*, dated July 5, 2018. Prepared for the City of Irwindale.

<sup>3</sup> PlaceWorks, 2017. *Construction Health Risk Assessment for City of Hope Campus Plan* dated July 2017. Prepared for the City of Duarte.

Note: due to project type, health risks from project operation were not determined.

<sup>4</sup> ECORP Consulting, Inc., 2019. *Health Risk Assessment for 13131 Los Angeles Street Industrial Project*, dated December 2019. Prepared for the City of Irwindale.

<sup>5</sup> City of Irwindale, 2014. *Draft Environmental Impact Report for Irwindale Materials Recovery Facility and Transfer Station Project* dated April 2014.

As shown in Table 5.2-20, the results of the operational HRAs determined the maximum incremental cancer risk at the maximum exposed individual resident for each of the individual projects identified above would be less than 10 in a million (i.e., below the project level significance threshold).

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Like the projects identified above, the proposed project's health risk would not exceed the South Coast AQMD threshold of significance. However, when the proposed project's health risks are considered in combination with cumulative projects, health risk at a maximally exposed sensitive receptor may exceed 10 in a million incremental cancer risk. In addition, the background cancer risk in the project area is already elevated. Therefore, despite the fact that the project is not proximate to sensitive receptors and would not exceed the South Coast AQMD threshold of 10 in a million, out of an abundance of caution, the project's cumulative effect on health risk in the South Coast AQMD region is considered cumulatively considerable for the reasons cited above. Therefore, the proposed project would cumulatively contribute to significant health impacts in the SoCAB, and the air pollutant emissions associated with the proposed project would be cumulatively considerable. This impact would be potentially significant.

### 5.2.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, some impacts would be less than significant: 5.2-3.

Without mitigation, these impacts would be potentially significant:

- **Impact 5.2-1:** The proposed project would be inconsistent with the applicable air quality plan because Option 1 and Option 2 would generate emissions in excess of South Coast AQMD's threshold criteria.
- **Impact 5.2-2:** Short-term and long-term operation of the project under Option 1 and Option 2 would generate emissions in exceedance of South Coast AQMD's threshold criteria and would cumulatively contribute to the nonattainment designations of the air basin.
- **Impact 5.2-4:** Operation of certain land uses that could be accommodated under the proposed project could result in other emissions that would adversely affect a substantial number of people.
- **Cumulative:** The project would cumulatively contribute to the overall elevated levels of DPM in the SoCAB.

### 5.2.7 Mitigation Measures

#### Impact 5.2-1

Mitigation Measures AQ-1, GHG-1, GHG-3, GHG-4, GHG-7, T-1, and T-2 are applicable to Impact 5.2-1.

#### Impact 5.2-2

Mitigation Measures GHG-3 and GHG-7 are applicable to Impact 5.2-2. Additionally, the following mitigation measure is also prescribed to reduce impacts associated with Impact 5.2-2.

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AQ-1 The construction contractor shall specify in the construction bid that the construction contractor(s) shall only use interior and exterior paints with a low VOC (volatile organic compound) content with a maximum concentration of 0 grams per liter (g/L) for building architectural coating during construction and for future coating to reduce VOC emissions. All building and site plans shall note use of paints with a maximum VOC concentration of 0 g/L. Prior to construction, the construction contractor(s) shall ensure that all construction plans submitted to the City of Irwindale Community Development Department clearly show this requirement.

#### Impact 5.2-4

AQ-2 Prior to future discretionary approval, if it is determined that a project has the potential to emit nuisance odors beyond the property line, an odor management plan shall be prepared by the project applicant, subject to review and approval by the City of Irwindale Community Development Department. Facilities that have the potential to generate nuisance odors include but are not limited to:

- Wastewater treatment plants
- Composting, green waste, or recycling facilities
- Fiberglass manufacturing facilities
- Painting/coating operations
- Large-capacity coffee roasters
- Food-processing facilities

The odor management plan shall show compliance with the South Coast Air Quality Management District's Rule 402 for nuisance odors. The odor management plan shall identify the best available control technologies for toxics (T-BACTs) that will be utilized to reduce potential odors to acceptable levels, including appropriate enforcement mechanisms. T-BACTs may include, but are not limited to scrubbers (i.e., air pollution control devices) at the industrial facility. T-BACTs identified in the odor management plan shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.

#### Cumulative Impacts

Mitigation Measures AQ-1, AQ-2, GHG-1, GHG-3, GHG-4, and GHG-7 are applicable to the cumulative impacts.

### 5.2.8 Level of Significance After Mitigation

#### Impact 5.2-1

As seen in Tables 5.2-23 and Table 5.2-24, Mitigation Measures AQ-1, GHG-1, GHG-3, GHG-4, GHG-7, T-1, and T-2, which would require use of paints with a low VOC content of 0 g/L during construction architectural coating and for future coating, electric-powered offroad equipment, electrification of truck/dock bays that

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serve cold storage facilities, reduction of truck idling, installation of a bus stop, and modification of the public sidewalk to accommodate a Class IV trail, would reduce emissions from VOC and NO<sub>x</sub> below the South Coast AQMD threshold for NO<sub>x</sub>. However, VOC and NO<sub>x</sub> emissions from Option 1 and NO<sub>x</sub> emissions from Option 2 would continue to exceed their respective South Coast AQMD thresholds. Therefore, project and cumulative operational-related air quality impacts under Impact 5.2-1 would be significant and unavoidable.

### Impact 5.2-2

#### Construction

Implementation of Option 1 of proposed project would exceed the South Coast AQMD VOC threshold. Mitigation Measure AQ-1 would require use of low-VOC interior and exterior paints for the proposed buildings. As shown in Table 5.2-21, *Maximum Daily Regional Construction Emissions with Mitigation Incorporated (Option 1)*, with the implementation of Mitigation Measure AQ-1, construction-related emissions would be reduced to below the South Coast AQMD threshold for VOC. Project and cumulative construction-related air quality impacts under Impact 5.2-2 would be reduced to less than significant.

**Table 5.2-21 Maximum Daily Regional Construction Emissions with Mitigation Incorporated (Option 1)**

Construction Phase	Pollutants (lbs./day) <sup>1,2</sup>					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Year 2027</b>						
Buildings 2 and 3 construction, paving, and architectural coating   Sewer main and storm drain site utility trenching and pipeline construction (private)	10	35	76	<1	11	3
Buildings 2 and 3 construction, paving, architectural coating, fine grading, and finishing/landscaping   Sewer main and storm drain site utility trenching and pipeline construction (private)	14	73	119	<1	16	6
Buildings 2 and 3 construction, paving, architectural coating, fine grading, and finishing/landscaping   Sewer main and storm drain site utility trenching, pipeline construction, and paving (private)	15	78	128	<1	17	7
Buildings 2 and 3 construction, paving, architectural coating, fine grading, and finishing/landscaping   Sewer main and storm drain site paving (private)	14	69	115	<1	16	6
<b>Maximum Daily Construction Emissions</b>						
Maximum Daily Emissions	15	78	128	<1	17	7
South Coast AQMD Regional Construction Threshold	75	100	550	150	150	55
<b>Significant?</b>	<b>No</b>	No	No	No	No	No

Source: CalEEMod v2022.1. Highest winter or summer emissions are reported.

<sup>1</sup> Based on the preliminary information provided by the Applicant. Where specific information regarding proposed project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by South Coast AQMD of construction equipment.

<sup>2</sup> Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, and street sweeping with Rule 1186-compliant sweepers. Modeling also includes implementation of Mitigation Measure AQ-1.

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Option 1 of proposed project would exceed the South Coast AQMD VOC and NO<sub>x</sub> threshold, and Option 2 would exceed the South Coast AQMD NO<sub>x</sub> threshold. As seen in Table 5.2-22, *Maximum Daily Regional Operation Emissions with Mitigation Incorporated (Option 1)*, and Table 5.2-23, *Maximum Daily Regional Operation Emissions with Mitigation Incorporated (Option 2)*, Mitigation Measures AQ-1, GHG-1, GHG-3, and GHG-7 would reduce emissions from VOC and NO<sub>x</sub>. They would require use of paints with a VOC content of 0 g/L, all-electric buildings, electric-powered off-road equipment, electrification of truck/dock bays that serve cold storage facilities, and reduction of truck idling. However, VOC and NO<sub>x</sub> emissions from Option 1 and NO<sub>x</sub> emissions from Option 2 would continue to exceed their respective South Coast AQMD thresholds. Therefore, project and cumulative construction-related air quality impacts under Impact 5.2-2 would be significant and unavoidable.

**Table 5.2-22 Maximum Daily Regional Operation Emissions with Mitigation Incorporated (Option 1)**

Source	Maximum Daily Emissions (lbs/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Off-Road	0	0	0	0	0	0
Transport Refrigeration Units	21	18	2	<1	<1	<1
Mobile (Truck)	1	83	29	1	22	7
Mobile (Passenger)	7	5	84	<1	20	5
Area	29	<1	43	<1	<1	<1
Energy	0	0	0	0	0	0
<b>Total</b>	<b>57</b>	<b>106</b>	158	1	42	12
<b>South Coast AQMD Regional Threshold</b>	<b>55</b>	<b>55</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>550</b>
<b>Exceeds Threshold?</b>	<b>Yes</b>	<b>Yes</b>	No	No	No	No

Source: CalEEMod Version 2022.1. Highest winter or summer emissions are reported.

Notes: lbs = Pounds.

Modeling also includes implementation of Mitigation Measures AQ-1, GHG-1, GHG-3, and GHG-7.

**Table 5.2-23 Maximum Daily Regional Operation Emissions with Mitigation Incorporated (Option 2)**

Source	Maximum Daily Emissions (lbs/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Off-Road	0	0	0	0	0	0
Transport Refrigeration Units	22	19	2	<1	<1	<1
Mobile (Truck)	1	63	22	1	9	3
Mobile (Passenger)	4	3	53	<1	5	1
Area	22	<1	31	<1	<1	<1
Energy	0	0	0	0	0	0
<b>Total</b>	<b>49</b>	<b>85</b>	107	1	14	4

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**Table 5.2-23 Maximum Daily Regional Operation Emissions with Mitigation Incorporated (Option 2)**

Source	Maximum Daily Emissions (lbs/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
South Coast AQMD Regional Threshold	55	55	550	150	150	550
Exceeds Threshold?	No	Yes	No	No	No	No

Source: CalEEMod Version 2022.1. Highest winter or summer emissions are reported.  
Note: lbs = Pounds  
Modeling also includes implementation of Mitigation Measures AQ-1, GHG-1, GHG-3, and GHG-7.

**Impact 5.2-4**

Mitigation Measure AQ-2 would ensure that odor impacts are controlled and facilities would comply with South Coast AQMD Rule 402. Therefore, Impact 5.2-4 would be reduced to less than significant with mitigation incorporated.

**Cumulative Toxic Air Contaminants**

As previously stated, because the proposed project’s health risk is considered in combination with cumulative projects, health risk at a maximally exposed sensitive receptor may exceed 10 in a million incremental cancer risk. Mitigation Measures AQ-1, AQ-2, GHG-1, GHG-3, GHG-4, and GHG-7 would help to lower TAC emissions because these measures would support the transition to zero emission trucks and zero emissions off-road equipment. For instance, Mitigation Measure GHG-3 requires all on-site outdoor cargo-handling equipment to be electric or non-diesel fueled. With the implementation of non-diesel forklifts and yard trucks, the calculated cancer risks are reduce significantly compared to the risks shown in Table 5.18, *Operational Health Risk Assessment Results*. For instance, the MEIR cancer risk is reduced to 1.1 in a million for both Option 1 and Option 2 with implementation of MM GHG-3. The cancer risk for users of the sports park is reduced to less than 0.5 in a million for Options 1 and 2. These calculations are provided in Appendix D2.

In addition, new rules have been adopted to reduce criteria air pollutant and TAC emission from goods movement, such as CARB’s Advanced Clean Trucks, Advanced Clean Fleets, and the Omnibus Regulation. Overall cancer risk in the SoCAB is decreasing due to improvements in truck technology and turnover of older vehicles. However, the project’s cumulative effect on health risk in the South Coast AQMD region is considered to potentially cumulatively contribute to significant health impacts in the SoCAB. The air pollutant emissions associated with the proposed project would be cumulatively considerable, and impacts would remain significant and unavoidable.

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#### 5.2.9 References

- Bay Area Air Quality Management District (BAAQMD). 2017, May. California Environmental Quality Act Air Quality Guidelines. [http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en).
- California Air Pollution Control Officers Association (CAPCOA). 2022. California Emissions Estimator Model (CalEEMod). Version 2022.1.0. Prepared by ICF in collaboration with Sacramento Metropolitan Air Quality Management District.
- California Air Resources Board (CARB). 1992. Federal Attainment Plan for Carbon Monoxide.
- . 1999. Final Staff Report: Update to the Toxic Air Contaminant List.
- . 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*.
- . 2016, May 4. Ambient Air Quality Standards. <https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf>.
- . 2021, December 9. CARB Review of the South Coast 2021 Redesignation Request and Maintenance Plan. Staff Report. [https://ww2.arb.ca.gov/sites/default/files/2021-10/Staff\\_Report\\_for\\_the\\_South\\_Coast\\_PM2.5\\_Redesignation\\_Request\\_and\\_Maintenance\\_Plan.pdf](https://ww2.arb.ca.gov/sites/default/files/2021-10/Staff_Report_for_the_South_Coast_PM2.5_Redesignation_Request_and_Maintenance_Plan.pdf).
- . 2022. Hotspots Analysis and Report Program (HARP2), Risk Assessment Standalone Tool (RAST). Version 22118.
- . 2023a, January 20 (accessed). Area Designations Maps/State and National. <https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>.
- . 2023b, January 20 (accessed). Common Air Pollutants. <https://ww2.arb.ca.gov/resources/common-air-pollutants>.
- . 2023c, January 9 (accessed). Air Pollution Data Monitoring Cards (2017, 2018, 2019, 2020, and 2021). <https://www.arb.ca.gov/adam/topfour/topfour1.php>.
- . 2023d, May 19 (accessed). February 24-2, 2022, Board Meeting Agenda. <https://ww2.arb.ca.gov/ma022422>.
- Consolidated Edison and New York State Energy Research and Development Authority (Consolidated Edison). 2017, February 9. *Considerations for ESS Fire Safety*. Prepared by DNV GL.
- National Fire Protection Association (NFPA). 2022. Energy Storage Systems (ESS) and Solar Safety. Accessed May 5, 2023. <https://www.nfpa.org/News-and-Research/Resources/Emergency-Responders/High-risk-hazards/Energy-Storage-Systems>.

## 5. Environmental Analysis

### AIR QUALITY

- Office of Environmental Health Hazard Assessment (OEHHA). 2015, February. Air Toxics Hot Spots Program Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments. [http://oehha.ca.gov/air/hot\\_spots/2015/2015GuidanceManual.pdf](http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf).
- South Coast Air Quality Management District (South Coast AQMD). 1992. Federal Attainment Plan for Carbon Monoxide.
- . 1993. *California Environmental Quality Act Air Quality Handbook*.
- . 2003a, August. White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution. <http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf>.
- . 2003b, August. “Background.” Appendix A of White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution. <http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf>.
- . 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. <http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf>.
- . 2008, July. Final Localized Significance Threshold Methodology.
- . 2011. Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf?sfvrsn=2>.
- . 2012, May 4. Final 2012 Lead State Implementation Plan: Los Angeles County. <http://www3.aqmd.gov/hb/attachments/2011-2015/2012May/2012-May4-030.pdf>.
- . 2013, February. 2012 Final Air Quality Management Plan. <https://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan>.
- . 2014, June. SCAQMD High Cube Warehouse Truck Trip Study: White Paper Summary of Business Survey Results. <http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/business-survey-summary.pdf>.
- . 2015a. *Health Effects of Air Pollution*. <http://www.aqmd.gov/docs/default-source/publications/brochures/the-health-effects-of-air-pollution-brochure.pdf>.
- . 2015b, October. “Blueprint for Clean Air: 2016 AQMP White Paper.” 2016 AQMP White Papers Web Page. <https://www.aqmd.gov/docs/default-source/Agendas/aqmp/white-paper-working-groups/wp-blueprint-final.pdf?sfvrsn=2>.

## 5. Environmental Analysis

### AIR QUALITY

- . 2020, October. Facility Prioritization Procedure for the Rule 1402 Implementation of the AB 2588 Program.
- . 2021a, August. MATES V: Multiple Air Toxics Exposure Study in the South Coast AQMD. <http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v>.
- . 2021b, October. Draft Final 2021 Redesignation Request and Maintenance Plan for the 2006 and 1997 24-Hour PM<sub>2.5</sub> Standards for South Coast Air Basin. <https://ww2.arb.ca.gov/sites/default/files/2021-10/draft-final-pm2-5-redesignation-request-and-maintenance-plan.pdf>.
- . 2022, December. 2022 Air Quality Management Plan. <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=10>.
- . 2023a, March (revised). South Coast AQMD Air Quality Significance Thresholds. <https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25>.
- . 2023b, May (accessed). Residential Air Toxics Cancer Risk Calculated from Model data. [https://experience.arcgis.com/experience/79d3b6304912414bb21ebdde80100b23/page/home/?data\\_id=dataSource\\_105-a5ba9580e3aa43508a793fac819a5a4d%3A259&views=Cancer-Risk%2CNavigate-the-map](https://experience.arcgis.com/experience/79d3b6304912414bb21ebdde80100b23/page/home/?data_id=dataSource_105-a5ba9580e3aa43508a793fac819a5a4d%3A259&views=Cancer-Risk%2CNavigate-the-map).
- Southern California Association of Governments (SCAG). 2023, October 19 (accessed). 2016-2040 RTP/SCS Final Growth Forecast by Jurisdiction. [https://scag.ca.gov/sites/main/files/file-attachments/2016\\_2040rtpscs\\_finalgrowthforecastbyjurisdiction.pdf?1605576071](https://scag.ca.gov/sites/main/files/file-attachments/2016_2040rtpscs_finalgrowthforecastbyjurisdiction.pdf?1605576071).
- U.S. Census Bureau. 2023, October 19 (accessed). LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2002-2020). OnTheMap application.
- US Environmental Protection Agency (US EPA). 2002, May. Health Assessment Document for Diesel Engine Exhaust. EPA/600/8-90/057F. Prepared by the National Center for Environmental Assessment, Washington, DC, for the Office of Transportation and Air Quality.
- . 2023a, January 20 (accessed). Criteria Air Pollutants. <https://www.epa.gov/criteria-air-pollutants>.
- . 2023b. Air Pollutant Emissions Trends Data. <https://www.epa.gov/air-emissions-inventories/air-pollutant-emissions-trends-data>.
- Western Regional Climate Center (WRCC). 2023, March 21 (accessed). San Gabriel Canyon, California ([Station ID] 047776). Period of Record Monthly Climate Summary, 01/01/1917 to 06/02/2016. In Western US Climate Summaries. <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7776>.

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### 5.3 CULTURAL RESOURCES

This section is focused on cultural resources related to archaeological and historical resources. Archaeology studies human artifacts, such as places, objects, and settlements that reflect group or individual religious, cultural, or everyday activities. Historical resources include sites, structures, objects, or places that are at least 50 years old and are significant for their engineering, architecture, cultural use or association, etc. Paleontological resources are discussed in Section 5.5, *Geology and Soils*.

There was one comment letter received from the Native American Heritage Commission in response to the Notice of Preparation (NOP) related to cultural resources and tribal consultation, as required by Assembly Bill (AB) 52 and Senate Bill (SB) 18. The relevant issues raised in those comment letters are addressed throughout this section and in Section 5.14, *Tribal Cultural Resources*. For a summary of the response letters, refer to Table 2-2, *Summary of Written Comments on the NOP*, or Appendix A2 for the comment letters.

The SB 18 and AB 52 tribal consultation correspondences are in Appendix E of this Draft EIR.

#### 5.3.1 Environmental Setting

##### 5.3.1.1 REGULATORY AND PLANNING FRAMEWORK

###### Federal

###### *National Historic Preservation Act*

The National Historic Preservation Act of 1966 (NHPA) coordinates public and private efforts to identify, evaluate, and protect the nation's historic and archaeological resources. The act authorized the National Register of Historic Places, which lists districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture.

Section 106 (Protection of Historic Properties) of the act requires federal agencies to take into account the effects of their undertakings on historic properties. Section 106 Review ensures that historic properties are considered during federal project planning and implementation. The Advisory Council on Historic Preservation, an independent federal agency, administers the review process with assistance from state historic preservation offices.

###### *National Register of Historic Places*

The National Register of Historic Places (NRHP) is the nation's official list of buildings, structures, objects, sites, and districts worthy of preservation because of their significance in American history, architecture, archeology, engineering, and culture. The NRHP recognizes resources of local, state, and national significance which have been documented and evaluated according to uniform standards and criteria.

Authorized under the Historic Preservation Act (see above), the NRHP is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect historic and archeological

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resources. The NHRP is administered by the National Park Service, which is part of the U.S. Department of the Interior.

To be eligible for listing in the NRHP, a resource must meet at least one of the following criteria:

- A. Is associated with events that have made a significant contribution to the broad patterns of our history.
- B. Is associated with the lives of persons significant in our past.
- C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction.
- D. Has yielded, or may be likely to yield, information important in history or prehistory.

#### *Archaeological Resources Protection Act*

The Archaeological Resources Protection Act of 1979 regulates the protection of archaeological resources and sites on federal and Indian lands.

#### *American Indian Religious Freedom Act and Native American Graves Protection 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. The Native American Graves Protection and Repatriation Act is a federal law passed in 1990 that mandates museums and federal agencies to return certain Native American cultural items—such as human remains, funerary objects, sacred objects, or objects of cultural patrimony—to lineal descendants or culturally affiliated Indian tribes.

### **State**

The California Office of Historic Preservation, a division of the California Department of Parks and Recreation, is responsible for carrying out the duties described in the Public Resources Code (PRC) and maintaining the California Historic Resources Inventory and the California Register of Historic Resources (CRHR). The state-level regulatory framework also includes CEQA, which requires the identification and mitigation of substantial adverse impacts that may affect the significance of eligible historical and archaeological resources.

#### *California Environmental Quality Act*

CEQA requires a lead agency to analyze whether historic and/or archaeological resources may be adversely impacted by a proposed project. Under CEQA, a “project that may cause a substantial adverse change in the significance of a historic resource is a project that may have a significant effect on the environment” (PRC Section 21084.1). Answering this question is a two-part process. First, it must be determined if the proposed

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project involves cultural resources. Second, if cultural resources are present, the proposed project must be analyzed for a potential “substantial adverse change in the significance” of the resource.

### ***Historical Resources***

According to CEQA Guidelines Section 15064.5, for the purposes of CEQA, historical resources are:

- A resource listed in, or formally determined eligible for listing in the CRHR (PRC Section 5024.1; California Code of Regulations, Title 14, Section 4850 et seq.)
- A resource in a local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significant in a historic resources survey meeting the requirements of Section 5024.1(g) of the PRC.
- Any object, building, structure, site, area, place, record, or manuscript that the lead agency determines to be eligible for national, state, or local landmark listing; generally, a resource shall be considered by the lead agency to be historically significant (and therefore a historic resource under CEQA) if the resource meets the criteria for listing on the CRHR (as defined in PRC Section 5024.1; Cal. Code Regs., Title 14, Section 4852).
- Resources nominated to the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity (as defined above) does not meet NRHP criteria may still be eligible for listing in the CRHR.

According to CEQA, the fact that a resource is not listed in or determined eligible for listing in the CRHR or is not included in a local register or survey does not preclude the lead agency from determining that the resource may be a historical resource (PRC Section 5024.1). Pursuant to CEQA, a project with an effect that may cause a substantial adverse change in the significance of a historical resource may have a significant effect on the environment (State CEQA Guidelines, Section 15064.5[b]).

### ***Substantial Adverse Change and Indirect Impacts to Historical Resources***

The CEQA Guidelines specify that a “substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired” (Section 15064.5). Material impairment occurs when a project alters in an adverse manner or demolishes “those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion” (Section 15064.5) or eligibility for inclusion in the NRHP, CRHR, or local register. In addition, pursuant to State CEQA Guidelines Section 15126.2, the “direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects.”

The following guides and requirements are of relevance to this study’s analysis of indirect impacts to historic resources. Pursuant to CEQA Guidelines (Section 15378), study of a project under CEQA requires consideration of “the whole of an action, which has the potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.” Guidelines Section 15064(d) further defines direct and indirect impacts:

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- (1) A direct physical change in the environment is a physical change in the environment which is caused by and immediately related to the project.
- (2) An indirect physical change in the environment is a physical change in the environment, which is not immediately related to the project, by which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment.
- (3) An indirect physical change is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project.

#### *Archaeological Resources*

In terms of archaeological resources, PRC Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- (1) 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.
- (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If it can be demonstrated that a proposed 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 they cannot be left undisturbed, mitigation measures are required (PRC Sections 21083.2[a], [b], and [c]). CEQA notes that if an archaeological resource is neither a unique archaeological resource nor a historical resource, the effects of the project on those resources shall not be considered to be a significant effect on the environment (Guidelines Section 15064.5[c][4]).

#### *California Public Resources Code*

Archaeological, paleontological, and historical sites are protected under a wide variety of state policies and regulations in the PRC. In addition, cultural and paleontological resources are recognized as nonrenewable resources and receive protection under the PRC and CEQA.

PRC Sections 5020 to 5029.5 continued the former Historical Landmarks Advisory Committee as the State Historical Resources Commission. The commission oversees the administration of the CRHR and is responsible for designating State Historical Landmarks and Historical Points of Interest.

PRC Sections 5079 to 5079.65 define the functions and duties of the Office of Historic Preservation, which administers federal- and state-mandated historic preservation programs in California as well as the California Heritage Fund.

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PRC Sections 5097.9 to 5097.991 provide protection to Native American historical and cultural resources and sacred sites; identify the powers and duties of the Native American Heritage Commission (NAHC); require that descendants be notified when Native American human remains are discovered; and provide for treatment and disposition of human remains and associated grave goods.

### *California Register of Historical Resources*

Created in 1992 and implemented in 1998, the CRHR is “an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state’s historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change” (PRC Sections 21083.2 and 21084.1). Certain properties are automatically included in the CRHR, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks numbered 770 and higher. Other properties recognized under the California Points of Historical Interest program, identified as significant in historical resources surveys, or designated by local landmarks programs may be nominated for inclusion in the CRHR.

Resources eligible for listing include buildings, sites, structures, objects, or historic districts that retain historical integrity and are historically significant at the local, state, or national level under one or more of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
2. It is associated with the lives of persons important in our past;
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. It has yielded, or has the potential to yield, information important to the prehistory or history.

Resources nominated to the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity does not meet NRHP criteria may still be eligible for listing in the CRHR.

### *California Health and Safety Code*

California Health and Safety Code Section 7052 states that it is a felony to disturb Native American cemeteries. Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner can determine whether the remains are those of a Native American. Section 7050.5(b) outlines the procedures to follow should human remains be inadvertently discovered in any location other than a dedicated cemetery. The section also states that the county coroner, upon suspecting the remains to be of Native American origin, must contact the NAHC within 24 hours. The NAHC has various powers and duties to provide for the ultimate disposition of any Native American remains, along with the assigned “most likely descendant.”

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#### *State Laws Pertaining to Human Remains*

Any human remains encountered during ground-disturbing activities are required to be treated in accordance with California Code of Regulations Section 15064.5(e) (CEQA), PRC Section 5097.98, and the California Health and Safety Code Section 7050.5. California law protects Native American burials, skeletal remains, and associated grave goods regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. In addition, CEQA Guidelines Section 15064.5 specifies the procedures to be followed in case of the discovery of human remains on nonfederal land. The disposition of Native American burials falls within the jurisdiction of the NAHC.

#### *California State Assembly Bill 52*

AB 52 of 2014 amended PRC Section 5097.94 and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 formalizes the lead agency–tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project area, including tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report.

#### *Tribal Cultural Resources*

Section 4 of AB 52 adds Sections 21074 (a) and (b) to the PRC, which address tribal cultural resources and cultural landscapes. Section 21074 (a) defines tribal cultural resources as one of the following:

- 1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
  - A. Included or determined to be eligible for inclusion in the California Register of Historical Resources.
  - B. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
- 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Section 1 (a)(9) of AB 52 establishes that “a substantial adverse change to a tribal cultural resource has a significant effect on the environment.” Effects on tribal cultural resources should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures “capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource.” Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to tribal cultural resources, the consultation shall include those topics (PRC Section 21080.3.2[a]). The

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environmental document and the mitigation monitoring and reporting program (where applicable) shall include any mitigation measures that are adopted (PRC Section 21082.3[a]).

### *California Senate Bill 18*

SB 18 regarding traditional tribal cultural places was signed into law in September 2004 and went into effect on March 1, 2005. It places requirements on local governments for developments within or near traditional tribal cultural places. SB 18 requires local jurisdictions to provide opportunities for involvement of California Native Americans tribes in the land planning process for the purpose of preserving traditional tribal cultural places. Per SB 18, the law requires a city or county to consult with the NAHC and any appropriate Native American tribe for the purpose of preserving relevant tribal cultural places prior to the adoption, revision, amendment, or update of a city's or county's General Plan.

### **Local**

#### *Historic Preservation Ordinance*

Irwindale established a historic preservation ordinance in 2009 that allows for the designation of individual landmarks. The City has not yet conducted a citywide survey of historic resources. The "Cultural and Historic Resources" section in the City's General Plan lists "Existing Historic Resources in Irwindale" and identifies three sites of historical significance (LAC 2023).

### **5.3.1.2 EXISTING CONDITIONS**

#### **Natural Setting**

The project site is plotted in Section 01, Township 1 South, Range 11 West, and Section 06, Township 1 South, Range 10 West in the Baldwin Park, California, quadrangle on the United States Geological Survey 7.5-minute topographic map. The proposed electrical tie-line for the battery energy storage system in Option 2 would extend into Township 1 South, Range 11 West, Section 12.

The project site is the site of a former sand and gravel quarry, vehicle storage, and the Nu-Way Live Oak Inert Landfill. A majority of the project site is currently undergoing remedial grading operations. The site reclamation includes the removal/demolition of any remaining structures, addressing the existing landfill, remedial over-excavation, and rough grading the project site. As depicted in Figure 3-3, with the exception of the northern portion and Southern California Edison (SCE) easement of the project site, the entire project site is disturbed by the former land uses and reclamation operation. There are two vacant, one-story metal buildings on the north end of the project site.

#### **Regional Geologic Setting**

The project site is in the San Gabriel Valley in the northern part of the Peninsular Ranges Geomorphic Province. This geomorphic province extends approximately 900 miles southward from the Los Angeles Basin to Baja California, Mexico, and is characterized by elongated northwest-trending mountain ranges separated by sediment-floored valleys. The most dominant features of the province are the northwest-trending fault zones,

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most of which die out, merge with, or are terminated by the steep reverse faults at the southern margin of the San Gabriel Mountains in the Transverse Ranges Geomorphic Province north of the site.

The project site is on an alluvial fan emanating from San Gabriel Canyon, about five miles southwest of the mouth of the canyon and about 300 feet northwest of the San Gabriel River Channel. The region has a complex geologic history influenced by periods of uplift, folding, faulting, and alluvial deposition; however, no faults are known to transect the site (see Appendix G1).

#### **Ethnographic Setting**

The project site is in the ethnographic and historical territory of the Gabrielino, who subsisted on hunting and gathering and lived in small, dispersed villages. The Gabrielino culture was adversely affected after the arrival of the Spanish missionaries to the San Fernando and San Gabriel Missions in the 1770s. The name Gabrielino denotes the people who were subjugated by the Spanish from Mission San Gabriel, which included people from the Gabrielino proper as well as other social groups. Therefore, in the post-Contact period, the name does not necessarily identify a specific ethnic or tribal group. The names Native Americans in southern California used to identify themselves have, for the most part, been lost. Many modern-day Gabrielino identify themselves as descendants of the indigenous people living across the plains of the Los Angeles Basin and refer to themselves as the *Tongva*. The Gabrielino language, as well as that of the Juaneño and Luiseño to the south, was derived from the Takic family of the Uto-Aztecan linguistic stock, which can be traced to the Great Basin area.

Gabrielino lands encompassed the greater Los Angeles Basin and the three southern Channel Islands: San Clemente, San Nicolas, and Santa Catalina. Inland, their territory was bounded on the north by the Chumash at Topanga Creek, the Serrano at the San Gabriel Mountains to the east, and the Juaneño on the south at Aliso Creek. This southern boundary of Gabrielino territory at Aliso Creek was recorded based on anthropological fieldwork conducted by Kroeber in 1907, and the Juaneño currently dispute the defined northern boundary of their lands with the Gabrielino at Aliso Creek. The Gabrielino had a complex social, economic, and political structure and are known for their steatite, or soapstone, industry originating on Santa Catalina Island. At the time of European contact there were probably 50 to 100 mainland villages, each with a population of 50 to 100 (Irwindale 2008).

#### **Historic Overview**

The City's beginning can be traced back to the 1860s with the area's first settlement by two families originally from Sonora, Mexico—the Ayons and the Fraijos. Both families previously lived in the San Juan Capistrano and Anaheim areas until Gregorio Fraijo acquired title to 80 acres of land to the south of what is now Arrow Highway and near Irwindale Avenue. This site is now occupied by the Civic Center. Fraijo subsequently sold half his land holding to his close friend, Facundo Ayon. Don Gregorio grew tobacco, corn, beans, and chiles on his land, and both men subsequently divided their land holdings among their children. Many of the later settlers were expert horsemen and earned their living tending cattle and sheep. Over the years, the two families became closer through marriage. Eventually, four of their sons and daughters married each other, giving rise to a thriving, close-knit community.

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The first homes in what would later become Irwindale were constructed of the abundant native river rock from the wide floodplain of the San Gabriel River. Water was obtained locally via a trench excavated from the river or from deep wells. As the years passed, several men from the area became master stone craftsmen, building practical and beautiful buildings, waterways, and fences. In 1899, a Mr. Irwin bought property in the Cypress Street-Vincent Avenue area and established a successful citrus farm with the assistance of the area's first gasoline-powered water pump. When the City was incorporated in 1957 as a general law city, it was named after this pioneer settler. On November 2, 1976, the City changed to a charter city (Irwindale 2008).

Historic resources listed in the City's General Plan include:

- **Saint Cyril of Alexandria Coptic Orthodox Church (formerly El Divino Salvador Presbyterian Church)** is on Irwindale Avenue at Calle del Norte. It was the first church of the city and was first constructed in 1889 but later destroyed by high winds. The current chapel was completed in 1902 and is still in use today.
- **Our Lady of Guadalupe Catholic Mission** on Arrow Highway and constructed between 1917 and 1919.
- **Southern Pacific Railway Depot** served as the first post office. The post office was constructed in 1915 and was relocated three times between 1929 and 1941 to different parts of the city before moving to Baldwin Park in 1958.
- **Residence** at 2408 Mountain Avenue. This building served as a halfway house for the stage line.
- **Don Gregorio Fraijo home site** at the terminus of Central Avenue.
- **Don Facundo Ayon home site** a short distance east of the Fraijo residence. It currently serves as city hall for Irwindale.
- **Mr. Irwin's Ranch property** extended along Cypress Avenue from what is now the City's corporate boundary with Baldwin Park, continuing to Vincent Avenue (Irwindale 2008).

There are two vacant, one-story metal buildings on the north end of the project site. The structures on the project site were constructed sometime in or after 1983. No historical resources are recorded within the project site.

### Cultural Resources Within the Project Site

#### *Records Search*

In May 2023, a records search of the California Historical Resources Information System was conducted at the South Central Coastal Information Center (SCCIC) at Cal State Fullerton to determine the extent and location of previous cultural resources studies, cultural resources surveys, previously identified prehistoric or historic archaeological site locations, architectural resources, historic properties, cultural landscapes, or tribal cultural resources within a half-mile radius of the project site. Additional searches consulted the NRHP, the Historic

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Property Data File, the listing of California Historical Landmarks, the CRHR, the California Inventory of Historic Resources, and the California Points of Historical Interest.

The results of all the searches indicated that 16 cultural resources studies have been conducted within a half mile of the project site. Of these, 6 studies (LA-04880, LA-06281, LA-09705, LA-10175, LA-11989, and LA-11991) were conducted within the project site, and 10 studies (LA-00072, LA-00186, LA-00261, LA-02412, LA-03824, LA-10327, LA-10803, LA-11990, LA-12835, and LA-13411) were conducted within a half mile of the project site. The studies conducted within the project site are listed in Table 5.3-1, *Previous Cultural Resources Studies Within the Project Site*.

**Table 5.3-1 Previous Cultural Resources Studies Within the Project Site**

Report No. (LA)	Author(s)	Study Title	Year
LA-04880	Smith, Philomene C., and Adam Sriro	Negative Archaeological Survey Report	2000
LA-06281	Storey, Noelle	Negative Archaeological Survey Report	2001
LA-09705	Pacific Legacy Inc.	Cultural Resources Inventory of the Southern California Edison Company Tehachapi Renewable Transmission Project, Kern, Los Angeles and San Bernardino Counties, California	2007
LA-10175	Applied EarthWorks Inc.	Confidential Cultural Resources Specialist Report for the Tehachapi Renewal Transmission Project	2009
LA-11989	Panich, Lee, and John Holson	Supplemental Archaeological Survey Report, 66kV Transmission Lines Access Roads, Tehachapi Renewable Transmission Project Segments 7 and 8, Los Angeles and San Bernardino Counties, California	2010
LA-11991	Schneider, Tsim D., and John Holson	Supplemental Archaeological Survey Report #2, Tehachapi Renewable Transmission Project Segment 7, Los Angeles County, California	2010

The records search also indicated that three previously recorded cultural resources are within a half mile of the project site, as shown in Table 5.3-2, *Previously Recorded Cultural Resources Within a Half-Mile Radius of the Project Site*. Two of the three, 19-190506 and 19-192581, were identified as a result of the SCCIC records search.

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**Table 5.3-2 Previously Recorded Cultural Resources Within a Half-Mile Radius of the Project Site**

Primary (P-19)	Recorder and Year	Age/Period	Site Description	Location in Relation to the Project Site	Eligibility for Listing on the California Register of Historic Resources
P-19-190506	Wendy L. Tinsley Becker and Heather Crane, Jr., Urbana Preservation & Planning, LLC, 2010	Historic era	SCE Rio Hondo-Bradbury 66kV Transmission Line: 3.5-mile electrical transmission line	SCE Easement in the Western Portion of the Site	Ineligible
P-19-192581	Wendy L. Tinsley Becker, Urbana Preservation & Planning, LLC, 2010	Historic era	SCE Antelope-Mesa 200 KV Transmission Line: 118-mile electrical transmission line	SCE Easement in the Western Portion of the Site	Ineligible
P-19-192850	Stephen R. Van Wormer, HELIX Environmental Planning, 2015	Historic era	Compacted earth fill gravity dam	Outside the project site (within 1 mile)	Eligible

**Sacred Lands File Search Results**

The Los Angeles County Department of Regional Planning submitted a Sacred Lands File (SLF) request to the Native American Heritage Commission on April 11, 2023. This search was requested to determine whether there are sensitive or sacred Native American resources in the vicinity of the project site that could be affected by the proposed project. The NAHC responded on April 21, 2023, with a negative SLF search, indicating no record for the presence of Native American sacred land within the project site. NAHC provided a consultation list of tribes with traditional lands or cultural places located within the boundaries of the city. The tribes listed by the NAHC include the Gabrieleno Band of Mission Indians–Kizh Nation, Gabrieleno/Tongva San Gabriel Band of Mission Indians, Gabrielino/Tongva Nation, Gabrielino Tongva Indians of California Tribal Council, Gabrielino-Tongva Tribe, Santa Rosa Band of Cahuilla Indians, and Soboba Band of Luiseno Indians (see Section 5.14, *Tribal Cultural Resources*).

**Tribal Consultation**

In accordance with Public Resources Code Section 21080.3.1(d), a lead agency is required to provide formal notification of intended development projects to Native American tribes that have requested to be on the lead agency’s list for receiving such notification. The formal notification is required to include a brief description of the proposed project and its location, lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation regarding potential impacts to tribal cultural resources. The City of Irwindale sent letters to the seven Native American contacts on November 15, 2023, requesting any information related to cultural resources or heritage sites within or adjacent to the project site (Appendix E).

SB 18 requires local governments to consult with California Native American tribes identified by the NAHC for the purpose of avoiding, protecting, and/or mitigating impacts to cultural places when creating or amending

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general plans, specific plans, and community plans. Because a tribe may be the only source of information regarding the existence of a tribal cultural resource, an SLF search is another method of identifying the presence of Native American resources near or on the project area.

As part of the SB 18 process, the Gabrieleno Band of Mission Indians–Kizh Nation requested consultation with the City prior to sending the consultation request letters, and a consultation was scheduled for May 23, 2023. The tribe was unable to attend the consultation and provided their concerns and requested mitigation measures in written form on June 1, 2023. Their written correspondence included confidential archival information that identifies the high cultural sensitivity of the project location. The tribe included documents from historical books and screenshots of historical maps. The Gabrieleno Band of Mission Indians–Kizh Nation stated that since the site is of high importance to the tribe, tribal participation is recommended during all ground-disturbing activities. The City agreed to the mitigation measures provided by the tribe to avoid impacts to unknown and/or buried cultural resources that could be tribal cultural resources.

### 5.3.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- C-1 Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.
- C-2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- C-3 Disturb any human remains, including those interred outside of dedicated cemeteries.

### 5.3.3 Applicable Specific Plan Development Standards and Design Guidelines

#### 5.3.3.1 DEVELOPMENT STANDARDS

There are no Specific Plan development standards pertaining to cultural resources.

#### 5.3.3.2 DESIGN GUIDELINES

There are no Specific Plan design guidelines pertaining to cultural resources.

### 5.3.4 Environmental Impacts

#### 5.3.4.1 IMPACT ANALYSIS

The following impact analysis addresses the thresholds of significance for which the Notice of Preparation disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.4-1: Development of the project could impact an identified historic resource. [Threshold C-1]**

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As described above in Section 5.3.1.2, *Existing Conditions*, the project site was historically used as a sand and gravel quarry, an inert landfill, and vehicle storage. At the time of the Notice of Preparation for this Draft EIR, reclamation of the former landfill was underway in accordance with the August 22, 2022, Operations Plan as approved by Los Angeles RWQCB (see Section 3.3.1.1, *Project Background*, of this DEIR). The site reclamation includes the removal/demolition of any remaining structures, addressing the existing landfill, remedial over-excavation, and rough grading the project site. The grading plan associated with the reclamation has been approved by the County of Los Angeles Department of Public Works and the City of Irwindale. The approval and implementation of these activities serve as baseline (existing) conditions for analysis of potential environmental impacts in this DEIR.

The results of the records search indicated that two previously recorded potential cultural resources were identified on the project site in the SCE easement along the western border of the site. However, as indicated in Table 5.5-2, neither resource meets the definition of a historic property under the National Historic Preservation Act or a historical resource under the California Environmental Quality Act. The records search also identified an earth-fill gravity dam in the Santa Fe Dam recreational area as a cultural resource.

There are two vacant, one-story metal buildings on the north end of the project site. The structures on the project site were constructed sometime in or after 1983 and would be removed during the reclamation process. Additionally, off-site improvements would include street improvements (see Figure 3-11, *Public Site Improvements*); off-site sewer, water and storm drain improvements (see Figure 5.15-2, *Conceptual Sewer Plan*, and Figure 5.15-3, *Conceptual Water Plan*, and Figure 5.9-3, *Proposed Conditions Hydrology Map*); and electric tie-lines for Option 2 (see Figure 3-9, *Electric Tie-Line Alignment Options*). None of the off-site improvements would impact historic resources. Therefore, the proposed project would cause no adverse change in the significance of a historical resource pursuant to Section 15064.5.

***Level of Significance Before Mitigation:*** No impact.

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**Impact 5.4-2: Development of the project could impact archaeological resources. [Threshold C-2]**

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The project site is a former sand and gravel quarry and inert landfill. The project site has been highly disturbed over the last approximately 65 years with mining on the site commencing in 1957. When mining operations ceased in approximately 1973, the depleted quarry pits extended to a maximum depth of approximately 120 feet below ground surface. The Nu-Way Live Oak Inert Landfill operated on the site from approximately 1996 to 2005. Under landfill operation, the former quarry was backfilled with inert materials to its capacity at street level. The site operations plan for reclamation describes the excavation, screening, and placement of approximately 8.3 million cubic yards of fill material. Under the operations plan, existing fill is being excavated to a maximum depth of 120 feet. Excavated materials will be screened for noncompliant materials, which will be segregated and disposed of.

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Additionally, off-site improvements would include street improvements (see Figure 3-11, *Public Site Improvements*), off-site sewer, water, and storm drain improvements (see Figures 5.15-2a-b, 5.15-3a-b, and 5.9-3), and electric tie-lines for option 2 (see Figure 3-9).

The results of the California Historical Resources Information System records search indicated that there are no archeological resources on the project site or within a 0.25-mile radius. Additionally, the NAHC responded on April 21, 2023, with a negative SLF search, indicating no record for the presence of Native American sacred land within the project site. Although the project site has a low potential for archaeological resources, previously unidentified subsurface (buried) resources could potentially be uncovered during ground-disturbing activity in areas that have not been excavated during the reclamation activities and for off-site improvements. If such archaeological resources are encountered during project construction, there could be adverse change of an archaeological resource, resulting in a significant impact. Mitigation Measures CUL-1 and CUL-2 would be implemented as part of the proposed project to mitigate this impact to less-than-significant.

***Level of Significance Before Mitigation:*** Potentially significant.

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#### **Impact 5.4-3: Grading activities could potentially disturb human remains. [Threshold C-3]**

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There are no known human remains in or near the project site, and there are no cemeteries in the vicinity of the proposed project. Additionally, and as shown in Figure 3-3, *Aerial Photograph*, the project site is in an urbanized area of the City and has been previously disturbed and developed. Therefore, the likelihood that human remains may be discovered during site clearing and grading activities is considered extremely low.

However, the proposed project would involve ground-disturbing activities that could have the potential to disturb previously undiscovered subsurface human remains. In the unlikely event that human remains are uncovered during ground-disturbing activities, California Health and Safety Code Section 7050.5 requires that disturbance of the site shall remain halted until the Los Angeles County Coroner has conducted an investigation into the circumstances, manner, and cause of any death, and recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. The Los Angeles County Coroner is required to make a determination within two working days of notification of the discovery of the human remains. If the Los Angeles County Coroner determines that the remains are not subject to his or her authority, or if the Los Angeles County Coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

Compliance with existing law regarding the discovery of human remains would reduce potential impacts to human remains to less than significant levels. No mitigation measures are necessary.

***Level of Significance Before Mitigation:*** Less than significant.

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### 5.3.5 Cumulative Impacts

Implementation of the proposed project in conjunction with other planned projects in other areas of the city could unearth unknown significant archeological resources. Other planned development projects in the city would involve ground disturbance and could damage archeological resources that could be buried in those project sites.

However, as with the proposed project, other development projects in the city would be required to undergo discretionary review and would be subject to the same resource protection requirements and CEQA review. For example, other development projects would require the preparation of site-specific cultural resource assessments, which would include some degree of surface-level surveying. As a part of the assessments, a cultural resources records search of the SCCIC and a Sacred Land Files search would also be required. Additionally, as with the proposed project, other development projects would similarly be required to comply with all applicable existing regulations, procedures, and policies that are intended to address archeological resource impacts.

Furthermore, as demonstrated above, with mitigation, impacts on archeological resources as a result of implementation of the proposed project would be reduced to a level of less than significant.

In consideration of the preceding, the contribution to cumulative archeological resource impacts as a result of development accommodated by the proposed project would be rendered less than significant; therefore, impacts would not be cumulatively considerable.

### 5.3.6 Level of Significance Before Mitigation

Impact 5.4-1 has no impact.

Upon implementation of regulatory requirements and standard conditions of approval, Impact 5.4-3 would be less than significant.

Without mitigation, Impact 5.4-2 would be **potentially significant**:

- **Impact 5.4-2** There is the potential that previously unidentified subsurface resources are uncovered during ground disturbing activity.

### 5.3.7 Mitigation Measures

#### Impact 5.4-2

CUL-1 Prior to the issuance of any permits allowing ground-disturbing activities, the project proponent/operator shall retain a Qualified Archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology (U.S. Department of the Interior, 2011), to carry out all mitigation measures related to archaeological resources. The contact information for this Qualified Archaeologist shall be provided to the City of Irwindale Planning Department prior to the commencement of any construction activities on-site.

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CUL-2 In the event that unanticipated cultural resources are encountered during any phase of project construction, all construction work within 50 feet of the find shall cease, and the Qualified Archaeologist and designated Native American representative, as defined in Mitigation Measure TCR-2, shall assess the find for importance. Construction activities may continue in other areas. If the discovery is determined to not be significant by the Qualified Archaeologist and/or designated Native American representative, work will be permitted to continue in the area.

If a find is determined to be important by the Qualified Archaeologist and designated Native American representative, he or she shall immediately notify the City. The City shall consult on a finding of eligibility and implement appropriate treatment measures if the find is determined to be eligible for inclusion in the California Register of Historical Resources (CRHR). Work may not resume within the no-work radius until the lead agency, through consultation as appropriate, determines that the site either: (1) is not eligible for the CRHR; or (2) treatment measures have been completed to its satisfaction.

#### 5.3.8 Level of Significance After Mitigation

The mitigation measures would reduce Impact 5.4-2 to a level that is less than significant. Therefore, no significant, unavoidable, adverse impacts to cultural resources have been identified.

#### 5.3.9 References

Irwindale, City of. 2008, June. General Plan Update.

<https://www.irwindaleca.gov/DocumentCenter/View/38/General-Plan?bidId=>.

Los Angeles Conservancy (LAC). 2023, August 26 (accessed). Irwindale.

<https://www.laconservancy.org/save-places/community-preservation/irwindale/>.

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### 5.4 ENERGY

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for energy-related impacts associated with the Irwindale Gateway Project (proposed project) and ways in which it would avoid or reduce inefficient, wasteful, and unnecessary consumption of energy and facilitate the transition to renewable energy under Option 2 of the proposed project, consistent with the suggestions in Appendix F of the CEQA Guidelines. Energy service providers to the project area include Southern California Edison (SCE) for electrical service and Southern California Gas Company (SoCalGas) for natural gas.

#### 5.4.1 Environmental Setting

Section 21100(b)(3) of the CEQA Guidelines requires that an EIR include a detailed description of 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. Appendix F of the State CEQA Guidelines states that, to ensure that energy implications are considered in project decisions, the potential energy implications of a project shall be considered in an EIR, to the extent relevant and applicable to the project. Appendix F further states that a project's energy consumption and proposed conservation measures may be addressed, as relevant and applicable, in the project description, environmental setting, and impact analysis portions of technical sections as well as through mitigation measures and alternatives.

In accordance with Appendices G and F of the State CEQA Guidelines, this DEIR includes relevant information and analyses that address the energy implications of the proposed project. This section summarizes the proposed project's anticipated energy needs, impacts, and conservation measures. Other aspects of the proposed project's energy implications are discussed elsewhere in this DEIR, including Chapter 3, *Project Description*, and Sections 5.2, *Air Quality*, and 5.7, *Greenhouse Gas Emissions*.

##### 5.4.1.1 REGULATORY BACKGROUND

###### Federal Regulations

###### *Federal Energy Policy and Conservation Act*

The Energy Policy and Conservation Act of 1975 was established in response to the 1973 oil crisis. The act created the Strategic Petroleum Reserve, established vehicle fuel economy standards, and prohibited the export of US crude oil (with a few limited exceptions). It also created Corporate Average Fuel Economy (CAFE) standards for passenger cars starting in model year 1978. The CAFE standards are updated periodically to account for changes in vehicle technologies, driver behavior, and/or driving conditions.

The federal government issued new CAFE standards in 2012 for model years 2017 to 2025 that required a fleet average of 54.5 miles per gallon (mpg) for model year 2025. However, on March 30, 2020, the US Environmental Protection Agency (EPA) finalized an updated CAFE and greenhouse gas (GHG) emissions standards for passenger cars and light trucks and established new standards covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021–2026. Under SAFE, the fuel economy standards will increase 1.5 percent per year compared to the 5 percent per year

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under the CAFE standards established in 2012. Overall, SAFE requires a fleet average of 40.4 mpg for model year 2026 vehicles (85 Federal Register 24174 (April 30, 2020)).

On December 21, 2021, under direction of Executive Order (EO) 13990 issued by President Biden, the National Highway Traffic Safety Administration repealed Safer Affordable Fuel Efficient Vehicles Rule Part One, which had preempted state and local laws related to fuel economy standards. In addition, on March 31, 2022, the National Highway Traffic Safety Administration finalized new fuel standards in response to EO 13990. Fuel efficiency under the standards proposed will increase 8 percent annually for model years 2024 to 2025 and 10 percent annually for model year 2026. Overall, the new CAFE standards require a fleet average of 49 mpg for passenger vehicles and light trucks for model year 2026, which would be a 10 mpg increase relative to model year 2021 (NHTSA 2022).

#### *Energy Independence and Security Act of 2007*

The Energy Independence and Security Act of 2007 (Public Law 110-140) seeks to provide the nation with greater energy independence and security by increasing the production of clean renewable fuels; improving vehicle fuel economy; and increasing the efficiency of products, buildings, and vehicles. It also seeks to improve the energy performance of the federal government. The act set higher CAFE standards, the Renewable Fuel Standard, appliance energy efficiency standards, and building energy efficiency standards and accelerated research and development tasks on renewable energy sources (e.g., solar energy, geothermal energy, and marine and hydrokinetic renewable energy technologies), carbon capture, and sequestration (USEPA 2022).

#### *Energy Policy Act of 2005*

Passed by Congress in July 2005, the Energy Policy Act includes a comprehensive set of provisions to address energy issues. This Act includes tax incentives for energy conservation improvements in commercial and residential buildings, fossil fuel production and clean coal facilities, and construction and operation of nuclear power plants, among other things. Subsidies are also included for geothermal, wind energy, and other alternative energy producers.

#### *National Energy Policy*

Established in 2001 by the National Energy Policy Development Group, the National Energy Policy is designed to help the private sector and state and local governments promote dependable, affordable, and environmentally sound production and distribution of energy for the future. Key issues addressed by the energy policy are energy conservation, repair and expansion of energy infrastructure, and ways of increasing energy supplies while protecting the environment.

#### *Natural Gas Pipeline Safety Act of 1968*

The Natural Gas Pipeline Safety Act of 1968 authorizes the United States Department of Transportation to regulate pipeline transportation of flammable, toxic, or corrosive natural gas and other gases as well as the transportation and storage of liquefied natural gas. The Pipeline and Hazardous Materials Safety Administration within the Department of Transportation develops and enforces regulations for the safe, reliable, and environmentally sound operation of the nation's 2.6-million-mile pipeline transportation system.

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#### State Regulations

##### *California Energy Commission*

The California Energy Commission (CEC) was created in 1974 under the Warren-Alquist Act as the State's principal energy planning organization to meet the energy challenges facing the state in response to the 1973 oil embargo. The CEC is charged with six basic responsibilities when designing state energy policy:

- Forecast statewide electricity needs.
- License power plants to meet those needs.
- Promote energy conservation and efficiency measures.
- Develop renewable energy resources and alternative energy technologies.
- Promote research, development and demonstration.
- Plan for and direct the state's response to energy emergencies.

##### *California Public Utilities Commission*

In September 2008, the California Public Utilities Commission (CPUC) adopted the Long-Term Energy Efficiency Strategic Plan, which provides a framework for energy efficiency in California through the year 2020 and beyond. It articulates a long-term vision, as well as goals for each economic sector, identifying specific near-term, mid-term, and long-term strategies to assist in achieving these goals. This plan sets forth the following four goals, known as Big Bold Energy Efficiency Strategies, to achieve significant reductions in energy demand:

- All new residential construction in California will be zero net energy by 2020.
- All new commercial construction in California will be zero net energy by 2030.
- Heating, ventilation and air conditioning (HVAC) will be transformed to ensure that its energy performance is optimal for California's climate.
- All eligible low-income customers will be given the opportunity to participate in the low-income energy efficiency program by 2020.

With respect to the commercial sector, the Long-Term Energy Efficiency Strategic Plan notes that commercial buildings, which include schools, hospitals, and public buildings, consume more electricity than any other end-use sector in California. The commercial sector's five-billion-plus square feet of space accounts for 38 percent of the State's power use and over 25 percent of natural gas consumption. Lighting, cooling, refrigeration, and ventilation account for 75 percent of all commercial electric use, while space heating, water heating, and cooking account for over 90 percent of gas use. In 2006, schools and colleges were in the top five facility types for electricity and gas consumption, accounting for approximately 10 percent of State's electricity and gas use.

The CPUC and CEC have adopted the following goals to achieve zero net energy levels by 2030 in the commercial sector:

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**Goal 1:** New construction will increasingly embrace zero net energy performance (including clean, distributed generation), reaching 100 percent penetration of new starts in 2030.

**Goal 2:** 50 percent of existing buildings will be retrofit to zero net energy by 2030 through achievement of deep levels of energy efficiency and with the addition of clean distributed generation.

**Goal 3:** Transform the commercial lighting market through technological advancement and innovative utility initiatives.

#### *Energy Storage Procurement Policy*

With the increase in integration of renewable resources, batteries serve to mitigate fluctuations in these resources by storing energy to release to the grid at a time where these resources are not available. In response to increasing State goals and targets to reduce GHG emissions and meet air quality standards, as well as to achieve a carbon-free grid, the CPUC has formulated its storage procurement policy with three primary goals for energy companies throughout California:

- Grid optimization, including peak reduction, contribution to reliability needs, or deferral of transmission and distribution upgrade investments.
- Integration of renewable energy.
- GHG reductions in support of the State's targets. (CPUC 2024)

#### *Renewables Portfolio Standard*

##### *Senate Bills 1078, 107, X1-2, and Executive Order S-14-08*

The California Renewables Portfolio Standard (RPS) Program was established in 2002 under Senate Bills (SB) 1078 (Sher) and 107 (Simitian). The RPS program required investor-owned utilities, electric service providers, and community choice aggregators to increase the use of eligible renewable energy resources to 33 percent of total procurement by 2020. Initially under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. EO S-14-08 was signed in November 2008, expanding the state's Renewable Energy Standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). The CPUC is required to provide quarterly progress reports on progress toward RPS goals. This has accelerated the development of renewable energy projects throughout the state. For year 2020, the three largest retail energy utilities provided an average of 43 percent of their supplies from renewable energy sources. Community choice aggregators provided an average of 41 percent of their supplies from renewable sources (CPUC 2021).

##### *Senate Bill 350*

Governor Jerry Brown signed SB 350 on October 7, 2015, to expand the RPS by establishing a goal of 50 percent of the total electricity sold to retail customers in California per year by December 31, 2030. In addition, SB 350 includes the goal to double the energy efficiency savings in electricity and natural gas final end

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uses (such as heating, cooling, lighting, or class of energy uses upon which an energy efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires the CPUC, in consultation with the CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal. SB 350 also provides for the transformation of the California Independent System Operator into a regional organization to promote the development of regional electricity transmission markets in the western states and to improve the access of consumers served by the California Independent System Operator to those markets, pursuant to a specified process.

### ***Senate Bill 100***

On September 10, 2018, Governor Brown signed SB 100, which replaces the SB 350 requirements. Under SB 100, the RPS for public-owned facilities and retail sellers consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. SB 100 also established a new RPS requirement of 50 percent by 2026. Furthermore, the bill establishes an overall state policy that by December 31, 2045, eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

### ***Senate Bill 1020***

SB 1020 was signed into law on September 16, 2022. It requires renewable energy and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035 and 95 percent by 2040. Additionally, SB 1020 requires all state agencies to procure 100 percent of electricity from renewable energy and zero-carbon resources by 2035.

### ***Appliance Efficiency Regulations***

California's Appliance Efficiency Regulations contain energy performance, energy design, water performance, and water design standards for appliances (including refrigerators, ice makers, vending machines, freezers, water heaters, fans, boilers, washing machines, dryers, air conditioners, pool equipment, and plumbing fittings) that are sold or offered for sale in California (California Code of Regulations [CCR] Title 20, Parts 1600–1608). These standards are updated regularly to allow consideration of new energy efficiency technologies and methods (CEC 2017).

### ***Title 24, Part 6, Energy Efficiency Standards***

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 (24 CCR Part 6). Title 24 Part 6 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods.

On August 11, 2021, the CEC adopted the 2022 Building Energy Efficiency Standards, which were subsequently approved by the California Building Standards Commission in December 2021. The 2022 standards went into effect on January 1, 2023, replacing the 2019 standards. The 2022 standards require mixed-fuel single-family homes to be electric-ready to accommodate replacement of gas appliances with electric

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appliances. The new standards also include prescriptive photovoltaic system and battery requirements for high-rise, multifamily buildings (i.e., more than three stories) and noncommercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers (CEC 2021).

#### *Title 24, Part 11, Green Building Standards*

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.<sup>1</sup> The mandatory provisions of CALGreen became effective January 1, 2011. In 2021, the CEC approved the 2022 CALGreen, which went into effect on January 1, 2023, replacing the 2019 standards.

#### *Assembly Bill 1493*

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduced GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and was anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implemented the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that set even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 light-duty vehicles (see also the discussion under "Federal Energy Policy and Conservation Act," above). In January 2012, the California Air Resources Board (CARB) approved the Pavley Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases with requirements for greater numbers of zero-emission vehicles in a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions (CARB 2017).

#### *Executive Order N-79-20*

On September 23, 2020, EO N-79-20 was issued to set a time frame for the transition to zero-emissions (ZE) passenger vehicles, trucks, and off-road equipment. It directs CARB to develop and propose:

- Passenger vehicle and truck regulations requiring increasing volumes of new ZEVs (zero-emission vehicles) sold in the California toward the target of 100 percent of in-state sales by 2035.
- Medium- and heavy-duty vehicle regulations requiring increasing volumes of new ZE trucks and buses sold and operated in California toward the target of 100 percent of the fleet transitioning to ZEVs by 2045 everywhere feasible, and for all drayage trucks to be ZE by 2035.

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<sup>1</sup> The green building standards became mandatory in the 2010 edition of the code.

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- Strategies to achieve 100 percent zero emissions from all off-road vehicles and equipment operations in California by 2035, in cooperation with other state agencies, the EPA, and local air districts.

#### Regional

##### *SCAG's 2020-2045 Regional Transportation Plan / Sustainable Communities Strategy*

The 2020-2045 RTP/SCS, Connect SoCal, was adopted on September 3, 2020, and is an update to the 2016-2040 RTP/SCS (SCAG 2020). In general, the RTP/SCS outlines a development pattern for the region that, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled (VMT) from automobiles and light duty trucks and thereby reduce energy consumption from these sources.

Connect SoCal continues efforts of the previous RTP/SCSs to integrate transportation and land use strategies in development of the SCAG region through the horizon year 2045 (SCAG 2020). It forecasts that implementation of the plan will reduce VMT per capita in year 2045 by 4.1 percent compared to baseline conditions for that year. Connect SoCal includes a “Core Vision” that centers on maintaining and better managing the transportation network for moving people and goods; expanding mobility choices by locating housing, jobs, and transit closer together; and increasing investments in transit and complete streets (SCAG 2020).

#### 5.4.1.2 EXISTING CONDITIONS

##### Electricity

The project site is in SCE's service area, which spans much of Southern California—from Orange and Riverside counties in the south to Santa Barbara County in the west to Mono County in the north (CEC 2022a). Total electricity consumption in SCE's service area was 103,045 gigawatt-hours in 2021 (CEC 2023a).<sup>2</sup> Sources of electricity sold by SCE in 2021, the latest year for which data are available, were:

- 30.9 percent renewable, consisting mostly of solar and wind
- 3.3 percent large hydroelectric
- 15.2 percent natural gas
- 8.4 percent nuclear
- 0.3 percent other
- 42.0 percent unspecified sources—that is, not traceable to specific sources (CEC 2022c)<sup>3</sup>

The project site is currently undergoing an active reclamation and does not have any current existing permanent uses.

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<sup>2</sup> One gigawatt-hour is equivalent to one million kilowatt-hours.

<sup>3</sup> The electricity sources listed reflect changes after the 2013 closure of the San Onofre Nuclear Generating Station, which is owned by SCE.

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#### Gas

SoCalGas provides gas service in the City of Irwindale, including to the project site. The service area of SoCalGas spans much of the southern half of California, from Imperial County in the southeast to San Luis Obispo County in the northwest to part of Fresno County in the north to Riverside County and most of San Bernardino County in the east (CEC 2022b). Total natural gas consumption in SoCalGas's service area was 6,756 million therms for 2021 (CEC 2023b). As stated, the project site does not currently have any existing permanent uses.

#### Fuel Consumption

California is among the top producers of petroleum in the country, with crude oil pipelines throughout the state connecting to oil refineries in the Los Angeles, the San Francisco Bay, and the Central Valley regions. In addition to producing petroleum, California is also one of the top consumers of fuel for transportation; this sector accounted for approximately 35 percent of California's total energy demand in 2020, amounting to approximately 2,355.5 trillion British thermal units (BTU) (USEIA 2020a). In 2020, California's transportation sector consumed approximately 433 million barrels of petroleum fuels (USEIA 2020b). According to the CEC, California's 2021 fuel sales were approximately 13,818 million gallons of gasoline and 3,744 million gallons of diesel (CEC 2022d). In Los Angeles County, approximately 3,061 million gallons of gasoline and 224 million gallons of diesel fuel were sold in 2021 (CEC 2022e).

### 5.4.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

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

### 5.4.3 Applicable Specific Plan Development Standards and Design Guidelines

#### 5.4.3.1 DEVELOPMENT STANDARDS

There are no specific Irwindale Gateway Specific Plan development standards pertaining to energy.

#### 5.4.3.2 DESIGN GUIDELINES

Section 6.1 of the Irwindale Gateway Specific Plan Design Guidelines would encourage the implementation of energy efficiency building design features that can be implemented in the site planning, design, and construction phases of the Specific Plan to minimize waste deposited at landfills, decrease energy use and fossil fuel consumption, and reduce domestic water consumption. Under Section 6.6, Lighting, the design guidelines state that low intensity, energy-conserving night lighting is preferred, such as fixtures equipped with light-emitting diodes (LED), which would help minimize energy impacts.

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#### 5.4.4 Environmental Impacts

The proposed project consists of two potential site plans. Under Option 1, the proposed project would result in the development of an industrial logistics and distribution center with three buildings and associated parking and loading docks, including 387,500 square feet of refrigerated space<sup>4</sup> and 610,296 square feet of unrefrigerated space, for a total of 982,796 square feet of industrial space over 68.1 acres.<sup>5</sup> Proposed project development under Option 2 would involve construction and operation of two industrial buildings on a 36.95-acre Industrial/Business Park parcel, including 387,500 square feet of refrigerated space and 316,570 square feet of unrefrigerated space, for a total of 704,070 square-feet of industrial space. Option 2 would also result in the development of a 15.95-acre parcel for a 400-megawatt Battery Energy Storage System (BESS). An interconnection facility would be developed at the SCE Rio Hondo substation, across Live Oak Avenue, to connect the BESS to the transmission system.

The following methodology is described for both Option 1 and Option 2.

##### 5.4.4.1 METHODOLOGY

Based on CEQA Guidelines Appendix F, Energy Conservation, to ensure energy implications are considered in project decisions, CEQA requires that EIRs include a discussion of the potential impacts of proposed projects, with particular emphasis on avoiding or reducing wasteful, unnecessary, or inefficient use of energy resources. Environmental effects may include the proposed project's energy requirements and its energy use efficiencies by amount and fuel type during construction and operation; the effects of the proposed project on local and regional energy supplies; the effects of the proposed project on peak- and base-period demands for electricity and other forms of energy; the degree to which the proposed project complies with existing energy standards; the effects of the proposed project on energy resources; and the proposed project's projected transportation energy use requirements and overall use of efficient transportation alternatives, if applicable. The provided energy and fuel usage information provided in this section are based on the following:

- **Building Energy.** The California Emissions Estimator Model (CalEEMod) Version 2022.1 default energy (i.e., electricity and natural gas) rates for nonresidential land uses are based on the CEC's 2018-2030 Uncalibrated Commercial Sector Forecast (commercial forecast), which was compiled by the CEC in 2019. Use of the CalEEMod default energy rates results in conservative estimates compared to the recently adopted 2022 Building Energy Efficiency Standards because the commercial forecast is based on the energy demand per square foot of building space, land use subtype, and end use for the year 2019.<sup>6</sup> It is anticipated new buildings under the 2022 Standards would generally result in lower electricity use.

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<sup>4</sup> Based on the preliminary data in the Specific Plan, both Option 1 and Option 2 are assumed to include 387,500 square feet of refrigerated space.

<sup>5</sup> Development of 982,796 square feet of industrial space under Option 1 is based on the latest project data from the Applicant. Modeling for the proposed project utilizes 997,796 square feet of industrial space, which is based on preliminary data received from the Applicant.

<sup>6</sup> As seen in Appendix D of the CalEEMod Users' Guide, the default energy dataset is based on 2019 consumption estimates from the CEC's Commercial Forecast and the Residential Appliance Saturation Survey (RASS). While these surveys were completed in 2019, the energy intensity estimates derived from the dataset represent buildings constructed in compliance with energy efficiency

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- **Fuel Usage.** Fuel usage associated with proposed project-related vehicle trips fuel usage data was obtained from EMFAC2021, Version 1.0.2, and OFFROAD2021, Version 1.0.4. Construction equipment data was obtained from the Applicant. Operational fuel usage calculations utilized passenger vehicle and truck trip data provided by Iteris. Where specific information regarding proposed project-related construction activities was not available, construction assumptions were based on CalEEMod defaults.
- **Transport Refrigeration Units.** Energy use from transport refrigeration units (TRUs) are based on the operation of 107 trucks with TRUs per day for Option 1<sup>7</sup> and 115 trucks with TRUs per day for Option 2,<sup>8</sup> 30 minutes of idling per unit, and calendar year 2027 aggregated Instate Trailer TRU emission rates obtained from OFFROAD2021, Version 1.0.4.<sup>9</sup>
- **Off-Road Equipment.** It is anticipated the proposed project would utilize up to 53 diesel-powered forklifts and 4 yard trucks for daily operations for Option 1 and up to 37 diesel-powered forklifts and 3 yard trucks for daily operations for Option 2. In addition, Option 1 is assumed to utilize 2 diesel fire pumps, and Option 2 is assumed to use up to 3 emergency generators and 1 diesel fire pump, each of which is assumed to be utilized for approximately 50 hours per year. The yard trucks would consist of diesel-powered units that would operate for 8 hours per day and 365 days per year.<sup>10</sup> Diesel-powered forklift, yard truck, pump, and generator emissions are based on calendar year 2027 OFFROAD2021, Version 1.0.4, emission factors for a 100-horsepower industrial forklift, 175-horsepower port yard tractor, 50-horsepower pump, and 50-horsepower generator, respectively.

#### 5.4.4.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the Notice of Preparation disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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requirements of the 2019 Energy Code as well as older buildings, which have higher energy use rates. Therefore, the default energy consumption estimates provided in CalEEMod are very conservative and overestimate expected energy use.

<sup>7</sup> Option 1 assumes that there would be 387,500 square feet of refrigerated space (39 percent of total building space) and 610,296 square feet of unrefrigerated space (61 percent of total building space). Total truck trips have been proportioned between the refrigerated and unrefrigerated space for a total of 275 trucks, 107 with TRUs.

<sup>8</sup> Option 2 assumes that there would be 387,500 square feet of refrigerated space (55 percent of total building space) and 316,570 square feet of unrefrigerated space (45 percent of total building space). Total truck trips have been proportioned between the refrigerated and unrefrigerated space for a total of 209 trucks, 115 with TRUs.

<sup>9</sup> The estimated cold storage space of 387,500 square feet provided by the applicant was utilized for both Option 1 and Option 2 for the most conservative TRU estimates. Because the cold storage space would take up a higher proportion of building space under Option 2, Option 2 is assumed to have a greater number of TRUs. See Appendix D1 for calculations.

<sup>10</sup> Based on 3.6 yard trucks per million square feet of building space (South Coast AQMD 2014).

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**Impact 5.4-1: Implementation of the proposed project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. [Threshold E-1]**

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### Short-Term Construction Impacts

Construction of development associated with the proposed project would create temporary increased demands for electricity and vehicle fuels compared to existing conditions and would result in short-term transportation-related energy use.

#### *Electrical Energy*

Construction activities associated with the proposed project would require electricity to power the construction equipment. Option 2 would also include installation of the BESS facility on-site.<sup>11</sup> The electricity use during construction would vary during different phases of construction. The majority of construction equipment during demolition and grading would be gas or diesel powered, and the later construction phases would require electric-powered equipment for interior construction and architectural coatings. Overall, the use of electricity would be temporary in nature and would fluctuate according to the phase of construction. Additionally, it is anticipated that the majority of electric-powered construction equipment would be hand tools (e.g., power drills, table saws, compressors) and lighting, which would result in minimal electricity usage during construction activities. Therefore, construction activities of the proposed project would not result in wasteful, inefficient, or unnecessary electricity demands because electricity consumption would be limited to tasks necessary to complete project construction, and impacts would be **less than significant**.

#### *Natural Gas Energy*

It is not anticipated that construction equipment used for development accommodated by the proposed project would be powered by natural gas, and no natural gas demand is anticipated during construction. Therefore, **no impact** is anticipated with respect to natural gas usage during the proposed project's construction.

#### *Liquid Fuels and Transportation Energy*

Transportation energy use depends on the type and number of trips, VMT, fuel efficiency of vehicles, and travel mode. Additionally, transportation energy use during construction would come from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction employee vehicles that would use diesel fuel and/or gasoline. Energy consumption during construction of the proposed project under Option 1 and Option 2 was calculated using the CalEEMod (Version 2022.1) computer model and data from the EMFAC2021, Version 1.0.2, and OFFROAD2021, Version 1.0.4, databases. The results are shown in Table 5.4-1, *Construction-Related Fuel Usage (Option 1)*, and Table 5.4-2, *Construction-Related Fuel Usage (Option 2)*.

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<sup>11</sup> The connection of the BESS use to the off-site interconnection facilities is assumed to utilize the same equipment as the off-site roadway improvements. Therefore, construction of these transmission lines would not result in energy use higher than already modeled under the linear construction phases.

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**Table 5.4-1 Construction-Related Fuel Usage (Option 1)**

Project Component	Gas		Diesel		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	kWh
Construction Worker Commute	4,647,448	173,901	7,422	209	208,151	76,397
Construction Vendor Trips	99,567	19,013	726,464	100,995	0	0
Construction Off-Road Equipment	N/A	6,884	N/A	191,164	N/A	0
<b>Total</b>	<b>4,747,014</b>	<b>199,797</b>	<b>733,886</b>	<b>292,368</b>	<b>208,151</b>	<b>76,397</b>

Sources: CalEEMod Version 2022.1; EMFAC2021, Version 1.0.2; OFFROAD2021, Version 1.0.4.  
Notes: VMT = vehicle miles traveled; kWh = kilowatt hour

**Table 5.4-2 Construction-Related Fuel Usage (Option 2)**

Project Component	Gas		Diesel		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	kWh
Construction Worker Commute	3,260,066	121,867	5,219	147	147,152	54,011
Construction Vendor Trips	72,484	13,842	528,688	73,503	0	0
Construction Off-Road Equipment	N/A	6,884	N/A	190,827	N/A	0
<b>Total</b>	<b>3,332,550</b>	<b>142,593</b>	<b>533,906</b>	<b>264,477</b>	<b>147,152</b>	<b>54,011</b>

Sources: CalEEMod Version 2022.1; EMFAC2021, Version 1.0.2; OFFROAD2021, Version 1.0.4.  
Notes: VMT = vehicle miles traveled; kWh = kilowatt hour

The use of energy resources by these vehicles would fluctuate according to the phase of construction and would be temporary. It is anticipated that the majority of off-road construction equipment, such as those used during grading, would be gas or diesel powered. In addition, all construction equipment would cease operating upon completion of the proposed project's construction. Thus, impacts related to transportation energy use during construction would be temporary and would not require expanded energy supplies or the construction of new infrastructure. Furthermore, to limit wasteful and unnecessary energy consumption, the construction contractors are anticipated to minimize nonessential idling of construction equipment during construction, in accordance with Section 2449 of CCR, Title 13, Article 4.8, Chapter 9, which limits nonessential idling of diesel-powered off-road equipment to five minutes or less. Also, construction trips would not result in unnecessary use of energy because the project site is centrally located and served by numerous regional freeway systems (e.g., Interstate [I]-605, I-10, and I-210) that provide the most direct routes from various parts of the region. Thus, energy use during construction of the proposed project would not be considered inefficient, wasteful, or unnecessary. Impacts would be **less than significant**.

### Long-Term Impacts During Operation

Operation of the proposed project would create additional demands for electricity and natural gas as compared to existing conditions due to the increase in proposed building space needs and commercial and industrial uses.

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Operational use of energy would include heating, cooling, and ventilation of buildings; water heating; operation of electrical systems; use of on-site equipment and appliances; and indoor and outdoor lighting.

### Electrical Energy

The proposed electricity consumption from the proposed project is shown in Table 5.4-3, *Operation-Related Electricity Consumption (Option 1)*, and Table 5.4-4, *Operation-Related Electricity Consumption (Option 2)*.<sup>12</sup>

**Table 5.4-3 Operation-Related Electricity Consumption (Option 1)**

Land Use <sup>1</sup>	Electricity (kWh/year)
Refrigerated Warehouse-No Rail	7,493,499
Unrefrigerated Warehouse-No Rail	2,856,407
Parking Lot	710,086
<b>Total</b>	<b>11,059,992</b>

Source: See Appendix F.  
Note: kWh=kilowatt-hour

**Table 5.4-4 Operation-Related Electricity Consumption (Option 2)**

Land Use <sup>1</sup>	Electricity (kWh/year)
Refrigerated Warehouse-No Rail	7,493,499
Unrefrigerated Warehouse-No Rail	1,481,663
Parking Lot	508,868
<b>Total</b>	<b>9,484,030</b>

Source: See Appendix F.  
Note: kWh=kilowatt-hour

Electrical service for the proposed project would be provided by SCE through connections to existing off-site electrical lines and new on-site infrastructure as needed. The proposed project would result in the development of 997,796 square feet of industrial space under Option 1, and a BESS facility and 704,070 square feet of industrial space under Option 2. As shown in the tables, the electricity demand by Option 1 would total 11,059,992 kilowatt-hours per year, with 9,484,030 kilowatt-hours per year for Option 2.<sup>13</sup> Though the proposed project would generate new energy demand at the site, it would be required to comply with the applicable Building Energy Efficiency Standards and CALGreen requirements. Furthermore, while operation of the BESS under Option 2 would consume electricity to power its components and would have unavoidable losses from energy transfer and storage, the facility would store excess electricity generated for use at a later

<sup>12</sup> Energy calculations do not include energy savings from utilization of future PV systems or EV chargers because this information was not available during modeling of the proposed project.

<sup>13</sup> Electricity demand for Option 2 does not include electricity demand from operation of the BESS. However, as battery storage would further CARB's goals toward renewable energy production, the net impact to energy would serve as a project benefit.

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time and thereby allow for more use of intermittent renewable energy sources. In addition, for operation of the BESS under Option 2, current battery storage technology can achieve about 85 percent to 90 percent efficiency. Therefore, in addition to electricity consumption in Table 5.4-4, the BESS would consume about 10 to 15 percent of energy received due to charging, discharging, or other power losses. This efficiency is similar to or better than other modern electric energy storage technologies and therefore would not represent a wasteful, inefficient, or unnecessary consumption of energy resources given the needed capacity for energy storage to support the transition to renewable energy sources (EESI 2019). Furthermore, installation of a battery storage facility would contribute to CARB’s goals for 100 percent renewable energy production. These features would be consistent with the goals outlined in Appendix F of the CEQA Guidelines, as the proposed project would promote the use of renewable energy and decrease reliance on fossil fuels to meet the electricity demands of the project site. Because the proposed project would be consistent with these goals and would provide features to promote the use of renewable energy, it would not result in wasteful, inefficient, or unnecessary electricity demands. Therefore, operation of the proposed project would result in a **less than significant** impact related to electricity.

#### *Natural Gas Energy*

The natural gas consumption associated with the proposed project is shown in Table 5.4-5, *Operation-Related Natural Gas Consumption (Option 1)*, and Table 5.4-6, *Operation-Related Natural Gas Consumption (Option 2)*. As seen in the tables, the natural gas demand by the proposed project would total 21,472,596 kilo-British thermal units per year under Option 1 and 15,810,691 kilo-British thermal units per year under Option 2.<sup>14</sup> Development associated with the proposed project would be built to meet the Building Energy Efficiency Standards, which would be consistent with the goals in Appendix F of the CEQA Guidelines. As such, the proposed project would not result in wasteful, inefficient, or unnecessary natural gas demands. Therefore, operation of the proposed project would result in **less than significant** impacts with respect to natural gas usage.

**Table 5.4-5 Operation-Related Natural Gas Consumption (Option 1)**

Land Use	Natural Gas (kBTU/year)
Refrigerated Warehouse-No Rail	9,708,441
Unrefrigerated Warehouse-No Rail	11,764,155
<b>Total</b>	<b>21,472,596</b>

Source: See Appendix F.  
Note: kBTU=kilo-British thermal units

<sup>14</sup> Energy calculations do not include energy savings from utilization of future PV systems or EV chargers because this information was not available during modeling of the proposed project.

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**Table 5.4-6 Operation-Related Natural Gas Consumption (Option 2)**

Land Use	Natural Gas (kBTU/year)
Refrigerated Warehouse-No Rail	9,708,441
Unrefrigerated Warehouse-No Rail	6,102,250
<b>Total</b>	<b>15,810,691</b>

Source: See Appendix F.  
Note: kBTU=kilo-British thermal units

*Transportation Energy*

The proposed project would result in the consumption of transportation energy during operation from the use of motor vehicles. The efficiency (average miles per gallon) of the motor vehicles in use is unknown and highly variable. Thus, estimates of transportation energy use are based on the overall VMT from passenger-vehicle and truck trips and related transportation energy use.<sup>15</sup> The proposed project’s VMT would primarily come from future employees.

As seen in Table 5.4-7, *Operation-Related Fuel Usage (Option 1)*, the VMT for the proposed project under Option 1 is estimated to be 18,595,626 miles.<sup>16</sup> Option 1 would also include operation of 107 trucks with TRUs as well as 53 diesel-powered forklifts and 4 yard trucks per day. As seen in Table 5.4-8, *Operation-Related Fuel Usage (Option 2)*, the VMT for the proposed project under Option 2 is estimated to be 12,750,249 miles.<sup>17</sup> Option 2 would also include operation of 115 trucks with TRUs as well as 37 diesel-powered forklifts and 3 yard trucks per day. The proposed project would involve the development of 997,796 square feet of industrial space under Option 1 and a BESS facility and 704,070 square feet of industrial space under Option 2. These uses would provide more opportunities for employment for residents of the City and would be within an urbanized area with nearby amenities and public transit options. Furthermore, the Specific Plan would include roadway and sidewalk/pathway improvements, which would promote alternative modes of transportation such as walking or biking. In addition, in compliance with CALGreen, the proposed project would include bicycle racks and storage for employee use. The proposed project would also include electric vehicle charging infrastructure, which, if implemented, could reduce reliance on fossil fuels.<sup>18</sup> These features and aspects of the proposed project would contribute in minimizing VMT and transportation-related fuel usage. Overall, it is expected that operation-related fuel usage associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than similar development projects. Therefore, impacts would be **less than significant** with respect to operation-related fuel usage.

<sup>15</sup> Fuel usage associated with operation of the proposed project, including vehicle trips and off-road equipment operation, utilizes fuel usage data was obtained from EMFAC2021, Version 1.0.2, and OFFROAD2021, Version 1.0.4.

<sup>16</sup> Truck trip VMT is based on 39.90 miles per trip from the South Coast AQMD WAIRE Implementation guidelines, Rule 2305. Passenger trip VMT calculations use the CalEEMod default 16.70 miles per trip. See Appendix D1 for calculations.

<sup>17</sup> Truck trip VMT is based on 39.90 miles per trip from the South Coast AQMD WAIRE Implementation guidelines Rule 2305. Passenger trip VMT calculations use the CalEEMod default 16.70 miles per trip. See Appendix D1 for calculations.

<sup>18</sup> Energy calculations do not include energy savings from utilization of future PV systems or EV chargers as this information was not available during modeling of the proposed project.

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**Table 5.4-7 Operation-Related Fuel Usage (Option 1)**

	Gas		Diesel		Natural Gas		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	Gallons	VMT	kWh
Transport Trucks <sup>1</sup>	2,640	608	7,512,229	1,188,684	438,901	72,251	114,414	202,867
Passenger Vehicles	9,778,308	344,201	80,447	6,323	1,245	157	667,443	244,765
Operation Off-Road Equipment	N/A	0	N/A	243,023	N/A	0	N/A	0
<b>Total</b>	<b>9,780,948</b>	<b>344,808</b>	<b>7,592,676</b>	<b>1,438,030</b>	<b>440,145</b>	<b>72,407</b>	<b>781,857</b>	<b>447,631</b>

Source: CalEEMod Version 2022.1; EMFAC2021, Version 1.0.2; OFFROAD2021, Version 1.0.4.

<sup>1</sup> Includes trips from trucks with and without TRUs.

**Table 5.4-8 Operation-Related Fuel Usage (Option 2)**

	Gas		Diesel		Natural Gas		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	Gallons	VMT	kWh
Transport Trucks <sup>1</sup>	1,992	458	5,668,069	896,877	331,156	54,514	86,327	153,065
Passenger Vehicles	6,188,586	217,841	50,914	4,001	788	99	422,418	154,909
Operation Off-Road Equipment	N/A	0	N/A	192,814	N/A	0	N/A	0
<b>Total</b>	<b>6,190,578</b>	<b>218,299</b>	<b>5,718,983</b>	<b>1,093,692</b>	<b>331,944</b>	<b>54,613</b>	<b>508,744</b>	<b>307,974</b>

Source: CalEEMod Version 2022.1; EMFAC2021, Version 1.0.2; OFFROAD2021, Version 1.0.4.

<sup>1</sup> Includes trips from trucks with and without TRUs.

*Level of Significance Before Mitigation:* Less than significant.

**Impact 5.4-2: The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. [Threshold E-2]**

The following evaluates consistency of the proposed project with California's RPS program.

### California Renewables Portfolio Standard Program

The state's electricity grid is transitioning to renewable energy under California's RPS Program. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The RPS goals have been updated since adoption of SB 1078 in 2002. In general, California has RPS requirements of 33 percent renewable energy by 2020 (SB X1-2), 44 percent by 2024, 50 percent by 2026, 52 percent by 2027, 60 percent by 2030, 90 percent by 2035, 95 percent by 2040, and 100 percent by 2045. The statewide RPS requirements do not directly apply to individual development projects but to utilities and energy providers such as SCE, whose compliance with RPS requirements would contribute to the state objective of transitioning to renewable energy. The land uses accommodated by the proposed project would comply with the current and future iterations of the Building Energy Efficiency Standards and CALGreen. In addition, under Option 2, operation of the BESS on-site would store electricity when excess generation capacity is available for use at a later time, thereby allowing more use of intermittent renewable energy sources. Installation of a battery storage facility would further CARB's goals for renewable energy production. Therefore, implementation of the

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proposed project would not conflict with or obstruct implementation of California's RPS Program, and impacts would be **less than significant**.

*Level of Significance Before Mitigation:* Less than significant.

#### 5.4.5 Cumulative Impacts

The areas considered for cumulative impacts to electricity and natural gas supplies are the service areas of SCE and SoCalGas, respectively, described above in Section 5.4.1. Other development projects in the service area would generate increased electricity and natural gas demands. However, as with development associated with the proposed project, all projects within the SCE and SoCalGas service areas would be required to comply with the current and future iterations the Building Energy Efficiency Standards and CALGreen, which would contribute to minimizing wasteful energy consumption. In addition, under Option 2, operation of the BESS on-site would further CARB's goals for renewable energy production. Therefore, cumulative impacts would be less than significant, and the proposed project's impacts would not be cumulatively considerable.

#### 5.4.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, some impacts would be less than significant: 5.4-1 and 5.4-2.

#### 5.4.7 Mitigation Measures

No mitigation measures required.

#### 5.4.8 Level of Significance After Mitigation

Impacts 5.4-1 and 5.4-2 would be less than significant.

#### 5.4.9 References

California Air Resources Board (CARB). 2017, January 18. California's Advanced Clean Cars Midterm Review. [https://ww2.arb.ca.gov/sites/default/files/2020-01/ACC%20MTR%20Summary\\_Ac.pdf](https://ww2.arb.ca.gov/sites/default/files/2020-01/ACC%20MTR%20Summary_Ac.pdf).

California Air Pollution Control Officers Association (CAPCOA). 2022. California Emissions Estimator Model (CalEEMod). Version 2022.1.0. Prepared by: ICF in collaboration with Sacramento Metropolitan Air Quality Management District.

California Energy Commission (CEC). 2017, January. 2016 Appliance Efficiency Regulations. <https://pdf4pro.com/cdn/2016-appliance-efficiency-regulations-5104f7.pdf>.

———. 2018a, May 9. Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation. News release. <https://www.energy.ca.gov/news/2018-05/energy-commission-adopts-standards-requiring-solar-systems-new-homes-first>.

## 5. Environmental Analysis

### ENERGY

- . 2018b. 2019 Building Energy and Efficiency Standards Frequently Asked Questions. [https://www.energy.ca.gov/sites/default/files/2020-03/Title\\_24\\_2019\\_Building\\_Standards\\_FAQ\\_ada.pdf](https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf).
  - . 2021. May 19. Amendments to the Building Energy Efficiency Standards (2022 Energy Code) Draft Environmental Report. CEC-400-2021-077-D.
  - . 2022a, January 24 (updated). Electric Utility Service Area California, 2020. <https://cecgis-caenergy.opendata.arcgis.com/documents/CAEnergy::electric-utility-service-areas/explore>.
  - . 2022b, January 24 (updated). Natural Gas Detailed Utility Service Area California, 2020. <https://cecgis-caenergy.opendata.arcgis.com/documents/natural-gas-utility-service-area-california-2020/explore>.
  - . 2022c, February 11 (accessed). 2020 Power Content Label: Southern California Edison. <https://www.energy.ca.gov/filebrowser/download/3902>.
  - . 2022d. California Retail Fuel Outlet Annual Reporting (CEC-A15) Results. <https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting>.
  - . 2022e. California Annual Retail Fuel Outlet Report Results (CEC-A15). <https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting>.
  - . 2023a, May 24 (accessed). Electricity Consumption by Planning Area. <http://www.ecdms.energy.ca.gov/elecbyplan.aspx>.
  - . 2023b, May 24 (accessed). Gas Consumption by Planning Area. <http://www.ecdms.energy.ca.gov/gasbyplan.aspx>.
- California Public Utilities Commission (CPUC). 2024, January 17 (accessed). Energy Storage. <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/energy-storage>.
- Environmental and Energy Study Institute (EESI). 2019, February 22. Energy Storage. Fact Sheet. <https://www.eesi.org/papers/view/energy-storage-2019>.
- National Highway Traffic Safety Administration (NHTSA). 2021, August 5. USDOT Proposes Improved Fuel Economy Standards for MY 2024-2026 Passenger Cars and Light Trucks. <https://www.nhtsa.gov/press-releases/fuel-economy-standards-2024-2026-proposal>.
- Southern California Association of Governments (SCAG). 2020, September 3. Connect SoCal: The 2020–2045 Regional Transportation Plan / Sustainable Communities Strategy of the Southern California Association of Governments. <https://www.connectsocial.org/Pages/Connect-SoCal-Final-Plan.aspx>.
- South Coast Air Quality Management District (South Coast AQMD). 2014, June. SCAQMD High Cube Warehouse Truck Trip Study White Paper Summary of Business Survey Results. <http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/business-survey-summary.pdf>.

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United States Energy Information Administration (USEIA). 2020a. Table F33: Total Energy Consumption, Price, and Expenditure Estimates. [https://www.eia.gov/state/seds/sep\\_fuel/html/pdf/fuel\\_te.pdf](https://www.eia.gov/state/seds/sep_fuel/html/pdf/fuel_te.pdf).

———. 2020b. Table F16: Total Petroleum Consumption Estimates. [https://www.eia.gov/state/seds/sep\\_fuel/html/pdf/fuel\\_te.pdf](https://www.eia.gov/state/seds/sep_fuel/html/pdf/fuel_te.pdf).

United States Environmental Protection Agency (USEPA). 2022, February 14 (accessed). Summary of the Energy Independence and Security Act Public Law 110-140 (2007). <https://www.epa.gov/laws-regulations/summary-energy-independence-and-security-act>.

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### 5.5 GEOLOGY AND SOILS

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the proposed Irwindale Gateway Specific Plan to impact geological and soil resources, paleontological resources, or unique geologic features in the City of Irwindale. The analysis in this section is based in part on the following technical reports:

- *Geotechnical Engineering Summary Report, Nu-Way Live Oak Landfill Remainder Parcel of Parcel Map As Per Book 186 P 79-82, Approximately 65 Acres, East of 605 Freeway and Between Arrow Highway and Live Oak Avenue Irwindale, California*, Irvine Geotechnical, Inc., April 4, 2011.
- *Rough Grading Plan, Nu-Way Live Oak Remediation, 13620 Live Oak Lane, Irwindale, CA, County of Los Angeles*, David Evans and Associates, Inc., August 11, 2022.

Complete copies of these studies are included in the technical appendices to this Draft EIR as Appendix G1 and Appendix G2, respectively.

#### 5.5.1 Environmental Setting

##### 5.5.1.1 REGULATORY BACKGROUND

Federal, state, and local laws, regulations, plans, or guidelines that are related to the protection and preservation of geologic and paleontological resources and applicable to the proposed project are summarized below.

##### **Federal**

There are no federal regulations directly applicable to the geotechnical conditions at the proposed project site. Nonetheless, installations of any underground utility lines are required to comply with industry standards specific to the type of utility (National Clay Pipe Institute for sewers, American Water Works Association for water lines, etc.), and the discharge of contaminants is required to be controlled through the National Pollutant Discharge Elimination System (NPDES) permitting program for management of construction and municipal stormwater runoff. These standards contain specifications for installation, design, and maintenance to reflect site-specific geotechnical conditions.

##### *Clean Water Act*

Under the Clean Water Act (CWA) of 1977, the United States Environmental Protection Agency (EPA) seeks to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The statute employs a variety of regulatory and nonregulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. The CWA authorizes the EPA to implement water quality regulations. Please see Chapter 5.9, *Hydrology and Water Quality*, of this Draft EIR for more detail.

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#### *National Pollution Discharge Elimination System*

The NPDES permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States from municipal separate storm sewer systems.

#### *Paleontological Resources Preservation Act*

The federal Paleontological Resources Preservation Act of 2002 limits the collection of vertebrate fossils and other rare and scientifically significant fossils to qualified researchers who have obtained a permit from the appropriate state or federal agency. These researchers must agree to donate any materials recovered to recognized public institutions where they will remain accessible to the public and other researchers. The act incorporates key findings of a report, “Fossils on Federal Land and Indian Lands,” issued by the Secretary of the Interior in 2000, which establishes that most vertebrate fossils and some invertebrate and plant fossils are considered rare resources.

### State

#### *California Alquist-Priolo Earthquake Fault Zoning Act*

The California Alquist-Priolo Earthquake Fault Zoning Act was signed into state law in 1972 and has been amended since. Its primary purpose is to mitigate the hazards of fault rupture by prohibiting structures for human occupancy across the trace of an active fault. This state law was a direct result of the 1971 San Fernando Earthquake, which was associated with extensive surface fault ruptures that damaged homes, commercial buildings, and other structures. The act requires the State Geologist of the California Geologic Survey to delineate regulatory zones known as “earthquake fault zones” along faults that are “sufficiently active” and “well defined” and to issue and distribute appropriate maps to all affected cities, counties, and state agencies for their use in planning and controlling new or renewed construction. Pursuant to this act and as stipulated in the California Code of Regulations (CCR), Title 14, Section 3603(a), structures for human occupancy are not permitted to be placed across the trace of an active fault. The act also prohibits structures for human occupancy within 50 feet of the trace of an active fault, unless proven by an appropriate geotechnical investigation and report that the development site is not underlain by active branches of the active fault, as stipulated in 14 CCR Section 3603(a). Furthermore, the act requires that cities and counties withhold development permits for sites within an earthquake fault zone until geologic investigations demonstrate that the sites are not threatened by surface displacement from future faulting, as stipulated in 14 CCR Section 3603(d).

#### *Seismic Hazard Mapping Act*

The Seismic Hazard Mapping Act was adopted by the state in 1990 to protect the public from the effects of earthquake hazards other than surface fault rupture, such as strong ground shaking, liquefaction, seismically induced landslides, or other ground failure. The goal of the act is to minimize loss of life and property by identifying and mitigating seismic hazards. The California Geologic Survey prepares and provides local governments with seismic hazard zone maps that identify areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures. Section 2697(a) of the act states that “cities and

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counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard.”

### *Sustainable Groundwater Management Act*

The Sustainable Groundwater Management Act was adopted by the state in 2014 to establish a statewide framework to help protect groundwater resources over the long term. The act established a priority framework for all 515 groundwater basins in California, categorizing them into very low, low, medium, and high priority based on eight components. The act requires local agencies to form groundwater sustainability agencies for the high- and medium-priority basins. These agencies develop and implement groundwater sustainability plans to avoid undesirable results and mitigate overdraft within 20 years. The project site is within the San Gabriel Valley Groundwater Basin, which is classified as a very low priority basin.

### *California Building Code*

Current law states that every local agency enforcing building regulations, such as cities and counties, must adopt the provisions of the California Building Code (CBC) within 180 days of its publication. The publication date of the CBC is established by the California Building Standards Commission, and the code is in 24 CCR Part 2. The CBC provides minimum standards to protect property and public safety by regulating the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of seismic shaking and adverse soil conditions. The CBC contains provisions for earthquake safety based on factors including occupancy type, the types of soil and rock on-site, and the strength of ground shaking with a specified probability at a site.

Chapters 16 and 16A of the CBC deal with structural design requirements governing seismically resistant construction (Section 1604), including factors and coefficients used to establish seismic site class and seismic occupancy category for the soil/rock at the building location and the proposed building design (Section 1610). Chapters 18 and 18A include the requirements for foundation and soil investigations (Section 1803); excavation, grading, and fill (Section 1804); allowable load-bearing values of soils (Section 1806); retaining walls (Section 1807); the design of footings, foundations, and slope clearances (Sections 1808); and pier, pile, driven, and cast-in-place foundation support systems (Section 1810). Chapter 33 includes requirements for safeguards at work sites to ensure stable excavations and cut or fill slopes (Section 3304). Appendix J of the CBC includes grading requirements for the design of excavations and fills (Sections J106 and J107) and for erosion control (Section J110). Construction activities are subject to occupational safety standards for excavation, shoring, and trenching as specified in Cal/OSHA regulations (CCR Title 8). The CBC is revised every three years. The 2022 CBC took effect on January 1, 2023.

### *Soils Investigation Requirements*

Requirements for soils investigations for new construction are in California Health and Safety Code Sections 17953 to 17955, and in Section 1803 of the CBC. Testing of samples from subsurface investigations is required, such as from borings or test pits. Studies must be done as needed to evaluate slope stability, soil strength, position and adequacy of load-bearing soils, the effect of moisture variation on load-bearing capacity,

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compressibility, liquefaction, differential settlement, and expansiveness as part of the geotechnical evaluation required by the CBC.

#### *California Public Resources Code*

Paleontological sites are protected under a wide variety of state policies and regulations in the California Public Resources Code (PRC). In addition, paleontological resources are recognized as nonrenewable resources and receive protection under the PRC and CEQA. PRC Division 5, Chapter 1.7, Section 5097.5, and Division 20, Chapter 3, Section 30244 state:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

This statute prohibits the removal, without permission, of any paleontological site or feature from lands under the jurisdiction of the state or any city, county, district, authority, or public corporation, or any agency thereof. As a result, local agencies are required to comply with PRC 5097.5 for their own activities, including construction and maintenance, as well as for permit actions (e.g., encroachment permits) undertaken by others. PRC Section 5097.5 establishes the removal of paleontological resources as a misdemeanor and requires reasonable mitigation of adverse impacts to paleontological resources from developments on public (state, county, city, and district) lands.

#### *Statewide General Construction Permit*

Construction projects of one acre or more are regulated under the Construction General Permit, Order No. 2012-0006-DWQ, issued by the State Water Resources Control Board in 2012. Projects obtain coverage by developing and implementing a Stormwater Pollution Prevention Plan estimating sediment risk from construction activities to receiving waters and specifying best management practices (BMP) that would be used by the project to minimize pollution of stormwater.

### **Regional**

#### *Los Angeles County All-Hazard Mitigation Plan*

The Disaster Mitigation Act of 2000, Public Law 106-390 (Section 322(a–d)) requires that local governments, as a condition of receiving federal disaster mitigation funds, adopt a mitigation plan that describes the process for identifying hazards, vulnerabilities, and risks; identifies and prioritizes mitigation actions; encourages the development of local mitigation; and provides technical support for those efforts. In response to this and the requirements of the California Office of Emergency Services, the County prepared the Los Angeles County All-Hazard Mitigation Plan to reduce and/or eliminate the effects of hazards through well-organized public education and awareness efforts, preparedness, and mitigation.

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#### Local

##### *City of Irwindale Municipal Code*

The City of Irwindale Municipal Code (IMC) Title 15, Chapters 8.28, 15.04, and 16.14 are relevant to potential geological impacts of the proposed project. Chapter 8.28 provides minimum requirements to control the discharge of pollutants into the City's municipal storm drain system and to ensure that discharges from the municipal storm drain system comply with the current NPDES Permit No. CAS004001, including amendments and California Regional Water Quality Control Board approvals. Chapter 15.04, Building Code, establishes the adoption of the Los Angeles County Building Code with amendments for the City of Irwindale. Section 16.14.010, Grading, requires a grading plan to be prepared by a registered civil engineer and submitted to the city engineer for approval prior to the issuance of a building permit.

#### 5.5.1.2 EXISTING CONDITIONS

##### **Geologic Setting**

Irvine Geotechnical conducted a subsurface exploration of the project site between October of 2007 and September of 2009. More recent soils engineering and geotechnical reports were prepared in conjunction with the Operations Plan and are referenced in the Rough Grading Plan Geotechnical and Soils Review Sheet completed by the Los Angeles County Public Works Department, September 8, 2022 (see Appendix G2, page 4). Per Condition No. 6 of the Rough Grading Plan review, rough grading must be approved and a final engineering geology and soils engineering report must be prepared with an As-Built Geologic Map included in the report. These conditions will reflect the baseline (existing conditions) for the proposed Irwindale Gateway Specific Plan.

The Irvine Geotechnical exploration program consisted of two seismic reflection line surveys, six Becker Hammer borings, a downhole seismic shear wave survey, an active/passive surface wave survey, excavation of two large test trenches, and one large diameter boring to characterize subsurface soils and evaluate on-site geotechnical conditions. The following is based on the site-specific investigation conducted by Irvine Geotechnical as well as a literature review.

##### *Regional Geology*

Based on a review of the United States Geological Survey 7.5-minute Topographic Series Map of the Baldwin Park quadrangle, the property is in the San Gabriel Valley in the northern part of the Peninsular Ranges Geomorphic Province (USGS 2015; CGS 2002). This geomorphic province extends approximately 900 miles southward from the Los Angeles Basin to Baja California, Mexico, and is characterized by elongated northwest-trending mountain ranges separated by sediment-floored valleys (Yerkes et al. 1965). The most dominant features of the province are the northwest-trending fault zones, most of which die out, merge with, or terminate at the steep reverse faults at the southern margin of the San Gabriel Mountains in the Transverse Ranges Geomorphic Province north of the site. The site was formerly an approximately 170-foot-deep gravel quarry; it was filled with 800,000 cubic yards of silt slurry originating from the active quarries west of Interstate 605, then used as an inert debris landfill. The inert debris fill primarily consists of concrete with abundant rebar,

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floor tile, cement and asphalt shingles, bricks, soil, and crushed glass. Based on a review of a preliminary geologic map of the San Bernardino quadrangle the whole site is atop artificial fill (Morton and Miller 2003).

The project site is on an alluvial fan emanating from San Gabriel Canyon, about five miles southwest of the mouth of the canyon, and about 300 feet northwest of the San Gabriel River Channel. The region has a complex geologic history influenced by periods of uplift, folding, faulting, and alluvial deposition; however, no faults are known to transect the site (Irvine Geotechnical 2011; CGS 2023).

#### *Groundwater*

The project site is in the San Gabriel Valley Groundwater Basin. Groundwater was encountered in one of the borings at approximately 165 feet below existing grade. Historic high groundwater is estimated to be about 72 feet or more below the existing grade (Irvine Geotechnical 2011).

#### **Seismic Setting**

##### *Regional Faulting*

The project site is in a seismically active region, adjacent to major geologic structures (active faults), and affected by historic large earthquakes. It is therefore reasonable to assume that it will be subjected to future severe seismic shaking along one or more of the local or regional faults. The earthquake characteristics of the most significant active faults within 20 miles of the project site are listed in Table 5.5-1. The State of California defines an “active fault” as one that has had surface displacement within Holocene time (approximately the last 11,000 years). “Potentially active” faults are defined as faults that show evidence of surface displacement during Quaternary time (within the last 1.6 million years) (CGS 2018).

There are no known active or potentially active faults passing through or immediately adjacent to the project site, and the project site is not within or immediately adjacent to a fault-rupture hazard zone (Alquist-Priolo Earthquake Fault Zone) (CGS 2023).

Secondary effects of seismic shaking that may affect the project site include ground lurching and shallow ground rupture, soil liquefaction, and dynamic settlement. These secondary effects are a possibility throughout the Southern California region and are dependent on the distance between the site and causative fault as well as the on-site geology.

The most important features in the area for seismic shaking are the Raymond and the Sierra Madre faults to the north and west, and the Whittier fault to the south (Jennings and Bryant 2010). Other active and potentially active faults exist within 100 kilometers (~62 miles) of the project site, but their earthquake effects at the project site would likely be equal to or less than effects from the faults in Table 5.5-1 (CGS 2003).

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**Table 5.5-1 Distances and Directions to Active Faults**

Fault	Approx. Distance and Direction from Site	Fault Length (miles)	Maximum Magnitude	Slip Rate (mm/yr)
Sierra Madre	2.2 miles north	35	7.2	2.0
Puente Hills Blind Thrust	2.8 miles south	27	7.1	0.7
Raymond	3.5 miles northwest	14	6.5	1.5
Clamshell-Sawpit	4.6 miles north	10	6.5	0.5
Whittier (Elsinore)	8.4 miles southwest	24	6.8	2.5
San Jose	11 miles east	12	6.4	0.5
Upper Elysian Park Blind Thrust	12 miles west	12	6.4	1.3
Hollywood	15 miles west	11	6.4	1.0
Verdugo	16 miles west	18	6.9	0.5
San Andreas (Mojave)	24 miles northeast	64	7.4	30

Source: CGS 2003.  
Note: Distances are approximate.

***Fault Rupture***

Alquist-Priolo earthquake fault zones are regulatory zones surrounding the surface traces of active faults in California. Wherever an active fault exists, if it has the potential for surface rupture, a structure for human occupancy cannot be placed over the fault and must be a minimum distance from the fault (generally 50 feet). An active fault, for the purposes of the Alquist-Priolo Act, is one that has ruptured in the last 11,000 years.

The project site is not within or immediately adjacent to an Alquist-Priolo Earthquake Fault Zone (CGS 2023). Based on a review of the readily available geologic literature, there are no known active or potentially active faults on or immediately adjacent to the project site (Jennings and Bryant 2010; CGS 2023).

***Earthquake Ground Shaking***

Southern California is a seismically active region. Impacts from ground shaking could occur many miles from an earthquake epicenter. The potential severity of ground shaking depends on many factors, including the size and type of the earthquake, the distance of the site from the earthquake epicenter, and the nature of the earth materials beneath a given site. The Los Angeles Basin region has experienced several large earthquakes throughout recorded history, with the last most sizable event being the magnitude 6.7 Northridge Earthquake in 1994. The earthquake occurred on a blind thrust fault centered in the San Fernando Valley community of Northridge.

***Liquefaction and Related Ground Failure***

Liquefaction refers to loose, saturated sand or gravel deposits that lose their load-supporting capability when subjected to intense shaking. Liquefaction potential varies based upon three main contributing factors:

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1) cohesionless, granular soils having relatively low densities (usually of Holocene age);<sup>1</sup> 2) shallow groundwater (generally less than 50 feet); and 3) moderate to high seismic ground shaking. Cohesionless and granular soils are sand or gravel, typically with little or no clay content. Soil liquefaction generally occurs in submerged granular soils and non-plastic silts during or after strong ground shaking.

The Seismic Hazards Mapping Act (1990) directed the State Geologist to delineate regulatory “zones of required investigation” to reduce the threat to public health and safety and to minimize the loss of life and property posed by earthquake-triggered ground failures. Zones of required investigation, referred to as “Seismic Hazard Zones” in CCR Article 10, Section 3722, are areas shown on Seismic Hazard Zone Maps where site investigations are required to determine the need for mitigation of potential liquefaction and/or earthquake-induced landslide ground displacements.

Lateral spreading involves lateral ground movements caused by seismic shaking. These lateral ground movements are often associated with a weakening or failure of an embankment or soil mass overlying a layer of liquefied sands or weak soils. Shallow groundwater, liquefiable, cohesionless soils and the presence of a free-face such as a stream bank are all contributing factors in determining the likelihood of lateral spreading. Fill material mostly consisting of inert debris underlies the project site with a maximum thickness of 185 feet (Irvine Geotechnical 2011). The static groundwater level was observed in 2007 to be about 165 below ground surface and the historical high groundwater level was interpreted to be 72 to 75 feet below ground surface (Irvine Geotechnical 2011). The project site is not in a zone of required investigation for liquefaction (CGS 2023). Based on the deep groundwater levels, the project site is not considered susceptible to liquefaction.

### Geologic Hazards

#### *Landslides*

Natural landslides occur when soils or bedrock lose strength in a sloping area (often during heavy rains or an earthquake), and gravity causes the materials to slide downhill. Human activities can also cause landslides; these activities include undercutting a hill, placing a heavy weight at the top of a slope, or substantially increasing the amount of water in a hillside. The project site is in a zone of required investigation for landslides due to the former quarry, which has since been filled in.

#### *Expansive Soils*

Expansive soils are silts and clays that swell and shrink as the amount of water in the soil increases and decreases, respectively. This change in water content primarily occurs in the near-surface environment, and deeper soils may undergo much less change in water content; also, the weight of overlying soils minimizes swelling uplift. The Geotechnical Engineering Summary Report notes that the soils on the project site are classified as “nonexpansive” (Irvine Geotechnical 2011).

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<sup>1</sup> The Holocene epoch began 12,000 to 11,500 years ago.

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### *Erosion*

Erosion is a normal and inevitable geologic process whereby earthen materials are loosened, worn away, decomposed, or dissolved; removed from one place; and transported to another. Precipitation, running water, and wind are all agents of erosion. Ordinarily, erosion proceeds imperceptibly, but when the natural equilibrium of the environment is changed, the rate of erosion can be greatly accelerated. Accelerated erosion in a developed area can cause damage by undermining structures; blocking storm drains; and depositing silt, sand, or mud on roads and in tunnels. Eroded materials can eventually be deposited in local waters, where the carried silt remains suspended in the water for some time, constituting a pollutant and altering the normal balance of plant and animal life.

Erosion can occur when rainfall or another source results in a significant amount of water on a sloping, bare-earth surface. Eroded soils can cause damage if they enter a waterway or a storm drain facility that deposits the collected water and entrained sediment into a waterway.

Topsoil is the thin, rich layer of soil where most nutrients for plants are found and where most land-based biological activity takes place. The loss of topsoil through erosion is a major agricultural and water quality problem. Since the site was formerly a quarry, topsoil has long been removed from the project site.

### *Subsidence*

Subsidence of the ground surface has been reported in alluvial basins where significant amounts of groundwater (often in an overdraft condition) or petroleum are withdrawn over long periods. The primary cause of nontectonic subsidence has been due to removal of large quantities of groundwater or petroleum and a significant lowering of the groundwater levels.

Ground cracking from subsidence in the future would be expected along the boundaries of groundwater basins, such as a contact between alluvium and bedrock, or overprominent geologic structures, i.e., faults.

### **Paleontological Setting**

Paleontological resources are fossils—that is, organisms or fragments, impressions, or traces of organisms preserved in rock. The project site is in the San Gabriel Valley east of Los Angeles in the northern portion of the Peninsular Ranges Geomorphic Province. As noted earlier under “Regional Geology,” the project site is on a broad alluvial plain, and surface deposits consist of artificial fill with a maximum thickness of 185 feet.

PlaceWorks contacted the Natural History Museum of Los Angeles County to inquire about paleontological resources in the project vicinity. The museum responded that no fossil localities were documented within the project site, but five fossil localities were documented in the same alluvial formation that occurs at depth on the site, with the closest locality being in Pasadena, about 8.7 miles northwest of the project site. Since the project site is situated on a thick layer of artificial fill, the potential for impacting paleontological resources is limited to the outer edges of the project site, outside of the boundary of the former quarry, and beneath artificial fill. The thickness of artificial fill is not known on the northern portion of the project site where proposed Building 3 of Option 1 or proposed Building 2 of Option 2 would be, but it is anticipated to be much shallower than on the rest of the project site. If the grading activities extend beyond the total depth of

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the artificial fill into the native alluvium, paleontological resources could be impacted by the project, though the likelihood is low. The proposed project includes off-site improvements that would include street improvements; sewer, water, and storm drain improvements; and electric tie-lines for Option 2. If the grading activities extend into the native alluvium, paleontological resources could be impacted by the project, though the likelihood is low.

#### 5.5.1.3 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- G-1 Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42.)
  - ii) Strong seismic ground shaking.
  - iii) Seismic-related ground failure, including liquefaction.
  - iv) Landslides.
- G-2 Result in substantial soil erosion or the loss of topsoil.
- G-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.
- G-4 Be located on expansive soil, as defined in Table 18-1B of the Uniform building Code (1994), creating substantial direct or indirect risks to life or property.
- G-5 Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.
- G-6 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

#### 5.5.2 Applicable Specific Plan Development Standards and Design Guidelines

##### 5.5.2.1 DEVELOPMENT STANDARDS

There are no Specific Plan development standards pertaining to geology and soils.

##### 5.5.2.2 DESIGN GUIDELINES

There are no Specific Plan design guidelines pertaining to geology and soils.

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### 5.5.3 Environmental Impacts

The following impact analysis addresses thresholds of significance regarding geology and soils. Unless otherwise noted, the impact analysis applies to both Option 1 and Option 2 development scenarios. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.5-1: Project occupants would be subject to potential seismic-related hazards. [Threshold G-1i, ii, iii, iv])**

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Southern California is a seismically active region. Impacts from ground shaking could occur many miles from an earthquake epicenter. The potential severity of ground shaking depends on many factors, including the distance from the originating fault, the earthquake magnitude, and the nature of the earth materials beneath a given site. Secondary effects of seismic shaking resulting from large earthquakes on the major faults in the Southern California region, which may affect the project site, include ground lurching and shallow ground rupture, soil liquefaction, and dynamic settlement. These secondary effects of seismic shaking are a possibility throughout the Southern California region and are dependent on the distance between the site and causative fault and the onsite geology. A discussion of these secondary effects is provided in the following sections (Irvine Geotechnical 2011; CGS 2023).

- i. There is no identified fault-rupture hazard zone as defined by the Alquist-Priolo Special Studies Zones Act within or near the project site (CGS 2023; Irvine Geotechnical 2011). Based on there being no known active surface faults in the project vicinity, fault rupture is considered unlikely, and impacts related to fault rupture would be less than significant.
- ii. As described above, the project site as well as the larger region are in a seismically active area that is subject to earthquake-induced ground shaking. Any future development within the project site is required to be designed in compliance with seismic requirements of the CBC and other 24 CCR criteria for seismic safety. Additionally, future development would be required to comply with established IMC and CBC standards regulating grading and building construction for seismic safety. This includes preparation of a geotechnical evaluation based on final project design, prior to any construction activity, that would identify seismic and other geotechnical hazards and how to avoid them. Any recommendations in the geotechnical evaluation to ensure compliance with the IMC and CBC standards would be implemented during project construction and design. Compliance with established standards would ensure impacts related to structural collapse or other shaking related hazards are less than significant.
- iii. The project site is in the Baldwin Park Quadrangle Seismic Hazard Zone map and is not in an area designated as susceptible to liquefaction (CGS 2017, 2017, 1999; Irvine Geotechnical 2011). Therefore, the proposed project would not subject people or structures to substantial liquefaction hazards, and impacts would be less than significant.

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- iv. Landslides are a type of erosion in which masses of earth and rock move downslope as a single unit. Susceptibility of slopes to landslides and lurching (earth movement at right angles to a cliff or steep slope during ground shaking) depend on several factors that are usually present in combination—steep slopes, condition of rock and soil materials, presence of water, formational contacts, geologic shear zones, and seismic activity. Although the project site is partially within a zone for required investigation for earthquake-induced landslides, this was delineated when there was an open pit, which is no longer representative of the project site. The historic backfilling on the project site has resulted in a highly non-uniform fill condition on the project site with nesting of oversize material and open voids or voids partially backfilled with loose infill material. To address these issues, remedial grading is being completed, which is being done per the approved operations plan, for the project site including the removal of all vegetation, debris and the upper 70 feet of existing fill. The Nu-Way Live Oak Reclamation Operations Plan addresses the existing fill (refer to Section 3.3.1 for a description of reclamation activities). The replacement fill would consist of soil approved by the soils engineer that is in conformance with the City of Irwindale grading standards. The project site and adjacent properties are flat and exhibit no substantial elevation changes. In the absence of significant ground slopes, the potential for landslides is considered negligible. No impact related to landslides would occur.

*Level of Significance Before Mitigation:* Less than significant.

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**Impact 5.5-2: Unstable geologic unit or soils conditions, including soil erosion, could not result from development of the project. [Thresholds G-2 and G-3]**

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Soils are particularly prone to erosion during the grading phase of development, especially during heavy rains. Construction projects of one acre or more are regulated under the General Construction Permit, Order No. 2012-0006-DWQ, issued by the State Water Resources Control Board in 2012. Projects obtain coverage by developing and implementing a Storm Water Pollution Prevention Plan (SWPPP) estimating sediment risk from construction activities to receiving waters and specifying BMPs that would be used by the project to minimize pollution of stormwater. The use of a SWPPP, which specifies BMPs for temporary erosion controls, reduces the potential for erosion during construction period activities. Standard erosion control measures would be implemented as part of a SWPPP for proposed development on the project site to minimize the risk of erosion or sedimentation during construction. The SWPPP must include an erosion control plan that prescribes measures such as phasing grading, limiting areas of disturbance, designating restricted-entry zones, diverting runoff from disturbed areas, protecting sensitive areas and outlets, and providing for revegetation or mulching.

Development of the proposed project is required to be designed in compliance with existing regulations, including the preparation and submittal of a SWPPP and a geotechnical evaluation, which would identify project- and site-specific requirements to ensure compliance with established IMC and CBC standards regulating grading, building construction, and erosion. A comprehensive discussion of erosion and water quality from rain events can be found in Section 5.8, *Hydrology and Water Quality*. Therefore, impacts related to erosion would be less than significant.

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Irvine Geotechnical conducted a subsurface investigation of the project site between October of 2007 and September of 2009. The exploration program consisted of two seismic reflection line surveys, six Becker Hammer borings, a downhole seismic shear wave survey, an active/passive surface wave survey, the excavation of two large test trenches, and one large diameter boring to characterize subsurface soils and evaluate on-site geotechnical conditions.

Based on Irvine Geotechnical's geotechnical subsurface evaluation, the project site contains fill material mostly consisting of inert debris with a maximum thickness of 185 feet (Irvine Geotechnical 2011). Overall, the evaluation notes that this fill material is not geotechnically acceptable and will need to be temporarily removed and recompacted to eliminate oversize materials and large voids in the fill. The Nu-Way Live Oak Reclamation Operations Plan addresses the existing fill (refer to Section 3.3.1 for a description of reclamation activities).

The City of Irwindale is underlain by alluvial fan deposits predominantly composed of coarse gravels, sands, and silts. Settlement and collapse are likely to exist in areas with alluvial soils. Areas of large settlement can damage or, in extreme cases, destroy structures. The presence of compressible soils in the city represents a hazard to structures and people. CBC design code has been adopted by the IMC and requires that structures be designed to mitigate compressible soils. A preliminary geotechnical evaluation was conducted and identified that fill material is generally loose and compressible and would require temporary removal and recompaction to a depth of 120 feet below the proposed finished grade. Under the approved Operations Plan, a majority of the project site is currently being excavated by the project applicant to approximately 120 feet below finished grade. Subsequent geotechnical evaluation would identify engineering recommendations based on final project design, and mandatory compliance with the recommendations of the geotechnical evaluation would ensure impacts associated with compressible soils are less than significant.

As stated in Section 5.5.1.2, *Existing Conditions*, the static groundwater level was observed in 2007 to be about 165 below ground surface, and the historical high groundwater level was interpreted to be 72 to 75 feet below ground surface (Irvine Geotechnical 2011). The project site is not in a zone of required investigation for liquefaction (CGS 2017). Based on the deep groundwater levels, the project site is not considered susceptible to liquefaction. Compliance with regulatory requirements, including the recommendations outlined in the preliminary geotechnical evaluation as well as future engineering recommendations based on a final project design, would ensure that impacts related to unstable soils would be less than significant.

As discussed in Impact 5.17-14 in *Utilities and Service Systems*, the proposed project would be served by the existing water systems and would not directly pump groundwater. As such, the proposed project would not substantially increase the amount of groundwater pumped from beneath the project site and thus would not exacerbate potential hazard from subsidence. The statutorily required sustainable groundwater management practices of the Valley County Water District pursuant to the Sustainable Groundwater Management Act of 2014 would ensure that the impact of subsidence would be less than significant.

***Level of Significance Before Mitigation:*** Less than significant.

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**Impact 5.5-3: Soil conditions would not result in risks to life or property. [Threshold G-4]**

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Expansive soils swell when they become wet and shrink when they dry out, resulting in the potential for cracked building foundations and, in some cases, structural distress of the buildings themselves. Based on a review of the geotechnical report by Irvine Geotechnical (2011), soils on the project site are “nonexpansive.” Furthermore, standard grading technologies and compliance with current grading requirements in accordance with the seismic requirements of the CBC would ensure impacts from expansive soils are less than significant.

*Level of Significance Before Mitigation:* Less than significant.

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**Impact 5.5-4: The proposed project would not require the use of septic tanks. [Threshold G-5]**

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The project would not involve the use of septic tanks or alternative wastewater disposal systems. The project would utilize the local sewer system. No impacts would result from project implementation.

*Level of Significance Before Mitigation:* No impact.

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**Impact 5.5-5: There is a low likelihood that the project could destroy a unique paleontological resource or site or unique geologic feature. [Threshold G-6]**

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A paleontological resource is a natural resource characterized as faunal or floral fossilized remains but may also include specimens of nonfossil material dating to any period preceding human occupation. These resources are valued for the information they yield about the history of the earth and its past ecological settings. The resources are found in geologic strata conducive to their preservation, typically sedimentary formations. Often, they appear simply as small outcroppings visible on the surface; other times they are below the ground surface and may be encountered during grading.

Since the project site is situated on a thick layer of artificial fill, the potential for impacting paleontological resources is limited to the outer edges of the project site, outside of the boundary of the former quarry, and beneath artificial fill. The thickness of artificial fill on the northern portion of the project site—where Building 3 is proposed in Option 1 and Building 2 is proposed in Option 2—is not presently known but is anticipated to be much shallower than the rest of the project site. If the grading activities extend beyond the total depth of the artificial fill into the native alluvium, paleontological resources could be impacted by the project, though the likelihood is low. Additionally, the proposed project includes off-site improvements that would include street improvements; sewer, water, and storm drain improvements; and electric tie-lines for Option 2. If the grading activities extend into the native alluvium, paleontological resources could be impacted by the project, though the likelihood is low. Furthermore, all project activities would be conducted in compliance with the requirements of PRC Division 5, Chapter 1.7, Section 5097.5, and Division 20, Chapter 3, Section 30244. Therefore, it is unlikely that ground-disturbing activities resulting from the proposed project would destroy unique paleontological resources.

*Significance Before Mitigation:* Less than significant.

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### 5.5.4 Cumulative Impacts

Impacts associated with geology and soils are by their nature focused on specific sites or areas, so the less-than-significant impacts within the project site to geology and soils from the proposed project would not contribute to a cumulative increase in hazards in the immediate vicinity of the project site. Mandatory compliance with state and city regulations, such as the CBC and IMC, would ensure that impacts at the project site would be less than significant. Similarly, impacts to paleontological resources are considered site specific in nature, and the project's low disturbance of native alluvium would ensure impacts from the project are reduced to less than significant and would not contribute to a larger cumulative impact. Therefore, cumulative impacts associated with geology and soils would be less than significant.

### 5.5.5 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.5-1, 5.5-2, 5.5-3, 5.5-4, and 5.5-5.

### 5.5.6 Mitigation Measures

No mitigation measures required.

### 5.5.7 Level of Significance After Mitigation

Impacts 5.5-1, 5.5-2, 5.5-3, 5.5-4, and 5.5-5 would be less than significant.

### 5.5.8 References

- California Geological Survey (CGS). 2002. California Geomorphic Provinces. Note 36.  
<https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf>.
- . 2003. June. "The Revised 2002 California Probabilistic Seismic Hazard Maps." <https://www.conservation.ca.gov/cgs/Documents/PSHA/2002%20California%20Hazard%20Maps.pdf>.
- . 2017. Earthquake Zones of Required Investigation. Accessed December 4, 2023.  
<https://maps.conservation.ca.gov/cgs/eqzapp/app/>.
- . 2018. Earthquake Fault Zones: A Guide for Government Agencies, Property Owners/Developers, and Geoscience Practitioners for Assessing Fault Rupture Hazards in California. Special Publication 42. [https://www.conservation.ca.gov/cgs/documents/publications/special-publications/SP\\_042.pdf](https://www.conservation.ca.gov/cgs/documents/publications/special-publications/SP_042.pdf).
- . 2023. Data Viewer. Website. <https://maps.conservation.ca.gov/cgs/DataViewer/>.
- Irwindale, City of. 2008, June. City of Irwindale General Plan Update.  
<https://www.irwindaleca.gov/DocumentCenter/View/38/General-Plan?bidId=>.

## 5. Environmental Analysis

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Jennings, C. W., and W. A. Bryant. 2010. Fault Activity Map of California. Map No. 6 of California Geological Data Map Series. Scale. Scale 1:750,000.

Morton, D. M., and F. K. Miller. 2003. Preliminary Geologic Map of the San Bernardino 30'30' x 60' Quadrangle, California. Version 1.0. United States Geological Survey Open-File Report 03-293. Scale 1:100,000.

United States Geological Survey (USGS). 2015. Baldwin Park, California Quadrangle. Map. 7.5' Topographic Series. Scale 1:24,000.

Yerkes, R. F., T. H. McCulloch, J. E. Schoellhamer, and J. G. Vedder. 1965. "Geology of the Los Angeles Basin, California: An Introduction." Professional Paper 420-A. United States Geological Survey.

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### 5.6 GREENHOUSE GAS EMISSIONS

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the proposed Irwindale Gateway Specific Plan (Specific Plan or proposed project) to cumulatively contribute to greenhouse gas (GHG) emissions impacts. Because no single project is large enough to result in a measurable increase in global concentrations of GHG, climate change impacts of a project are considered on a cumulative basis. This evaluation is based on the methodology recommended by the South Coast Air Quality Management District (South Coast AQMD). GHG emissions modeling was conducted using the California Emissions Estimator Model (CalEEMod), version 2022.1, and model outputs are in Appendix D1 of this DEIR. Cumulative impacts related to GHG emissions are based on the regional boundaries of the South Coast Air Basin (SoCAB).

During the Notice of Preparation's public review period, comments regarding GHG emissions during construction of the proposed project were received from the Department of Justice, South Coast Air Quality Management District, and Southern California Association of Governments. These comments have been addressed below by the analysis. The Notice of Preparation and all scoping comment letters are included as Appendices A1 and A2 of this document.

#### 5.6.1 Environmental Setting

##### 5.6.1.1 TERMINOLOGY

The following are definitions for terms used throughout this section.

- **Greenhouse gases (GHG).** Gases in the atmosphere that absorb infrared light, thereby retaining heat in the atmosphere and contributing to a greenhouse effect.
- **Global warming potential (GWP).** Metric used to describe how much heat a molecule of a greenhouse gas absorbs relative to a molecule of carbon dioxide (CO<sub>2</sub>) over a given period of time (20, 100, and 500 years). CO<sub>2</sub> has a GWP of 1.
- **Carbon-dioxide equivalent (CO<sub>2</sub>e).** The standard unit to measure the amount of greenhouse gases in terms of the amount of CO<sub>2</sub> that would cause the same amount of warming. CO<sub>2</sub>e is based on the GWP ratios between the various GHGs relative to CO<sub>2</sub>.
- **MTCO<sub>2</sub>e.** Metric ton of CO<sub>2</sub>e.
- **MMTCO<sub>2</sub>e.** Million metric tons of CO<sub>2</sub>e.

#### Greenhouse Gases and Climate Change

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHGs, to the atmosphere. The primary source of these GHGs is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and ozone (O<sub>3</sub>)—that are the likely cause of an increase in

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global average temperatures observed in the 20th and 21st centuries. Other GHGs identified by the IPCC that contribute to global warming to a lesser extent are nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).<sup>1,2</sup> The major GHGs applicable to the proposed project are briefly described.

- **Carbon dioxide (CO<sub>2</sub>)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH<sub>4</sub>)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in landfills and water treatment facilities.
- **Nitrous oxide (N<sub>2</sub>O)** is emitted during agricultural and industrial activities as well as during the combustion of fossil fuels and solid waste.

GHGs are dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Some GHGs have stronger greenhouse effects than others. These are referred to as high GWP gases. The GWPs of GHG emissions are shown in Table 5.6-1, *GHG Emissions and Their Relative Global Warming Potential Compared to CO<sub>2</sub>*. The GWP is used to convert GHGs to CO<sub>2</sub>-equivalence (CO<sub>2</sub>e) to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under IPCC's Fourth Assessment Report (AR4) GWP values for CH<sub>4</sub>, a project that generates 10 metric tons (MT) of CH<sub>4</sub> would be equivalent to 250 MT of CO<sub>2</sub>.<sup>3</sup>

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<sup>1</sup> Water vapor (H<sub>2</sub>O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant because it is considered part of the feedback loop rather than a primary cause of change.

<sup>2</sup> Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with current legislation aiming to reduce black carbon emissions by 50 percent below 2013 levels by 2030 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2023). However, state and national GHG inventories do not include black carbon due to ongoing work resolving the precise global warming potential of black carbon. The State's existing air quality policies will virtually eliminate black carbon.

<sup>3</sup> The global warming potential of a GHG is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

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**Table 5.6-1 GHG Emissions and Their Relative Global Warming Potential Compared to CO<sub>2</sub>**

GHGs	Second Assessment Report Global Warming Potential Relative to CO <sub>2</sub> <sup>1</sup>	Fourth Assessment Report Global Warming Potential Relative to CO <sub>2</sub> <sup>1</sup>	Fifth Assessment Report Global Warming Potential Relative to CO <sub>2</sub> <sup>1</sup>
Carbon Dioxide (CO <sub>2</sub> )	1	1	1
Methane (CH <sub>4</sub> ) <sup>2</sup>	21	25	28
Nitrous Oxide (N <sub>2</sub> O)	310	298	265

Sources: IPCC 1995, 2007, 2013.

Notes: The IPCC published updated GWP values in its Fifth Assessment Report (AR5) that reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO<sub>2</sub>. However, GWP values identified in AR4 are used by South Coast AQMD to maintain consistency in statewide GHG emissions modeling. In addition, the 2017 Scoping Plan Update was based on the GWP values in AR4.

<sup>1</sup> Based on 100-year time horizon of the GWP of the air pollutant compared to CO<sub>2</sub>.

<sup>2</sup> The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO<sub>2</sub> is not included.

### Human Influence on Climate Change

For approximately 1,000 years before the Industrial Revolution, the amount of GHGs in the atmosphere remained relatively constant. During the 20th century scientists observed a rapid change in the climate and the quantity of climate change pollutants in the Earth's atmosphere that is attributable to human activities. The amount of CO<sub>2</sub> in the atmosphere has increased by more than 35 percent since preindustrial times and has increased at an average rate of 1.4 parts per million per year since 1960, mainly due to the combustion of fossil fuels and deforestation (IPCC 2007). These recent changes in the quantity and concentration of climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is warming at a rate that cannot be explained by natural causes alone. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants (CAT 2006). In the past, gradual changes in the earth's temperature changed the distribution of species, availability of water, etc. Human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic time frame but within a human lifetime (IPCC 2007).

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth's temperature are hard to predict. Projections of climate change depend heavily upon future human activity. Therefore, climate models are based on different emission scenarios that account for historical trends in emissions and on observations of the climate record that assess the human influence of the trend and projections for extreme weather events. Climate-change scenarios are affected by varying degrees of uncertainty. For example, there are varying degrees of certainty on the magnitude of the trends for:

- Warmer and fewer cold days and nights over most land areas.
- Warmer and more frequent hot days and nights over most land areas.
- An increase in the frequency of warm spells and heat waves over most land areas.
- An increase in frequency of heavy precipitation events (or proportion of total rainfall from heavy falls) over most areas.

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- Larger areas affected by drought.
- Intense tropical cyclone activity increases.
- Increased incidence of extreme high sea level (excluding tsunamis).

#### Potential Climate Change Impacts for California

Observed changes over the last several decades across the western United States reveal clear signs of climate change. Statewide, average temperatures increased by about 1.7°F from 1895 to 2011, and warming has been greatest in the Sierra Nevada (CCCC 2012). The years from 2014 through 2016 showed unprecedented temperatures, with 2014 being the warmest (OEHHA 2018). By 2050, California is projected to warm by approximately 2.7°F above 2000 averages, a threefold increase in the rate of warming over the last century. By 2100, average temperatures could increase by 5.7 to 8.8°F, depending on emissions levels (CNRA 2019).

In California and western North America, observations of the climate have shown: 1) a trend toward warmer winter and spring temperatures; 2) a smaller fraction of precipitation falling as snow; 3) a decrease in the amount of spring snow accumulation in the lower- and middle-elevation mountain zones; 4) advanced shift in the timing of snowmelt of 5 to 30 days earlier in the spring; and 5) a similar shift (5 to 30 days earlier) in the timing of spring flower blooms (CAT 2006). Statewide precipitation has become increasingly variable from year to year, with the driest consecutive three years from 2020 to 2022 (NOAA 2023). According to the California Climate Action Team—a committee of state agency secretaries and the heads of agencies, boards, and departments, led by the California Environmental Protection Agency—even if actions could be taken to immediately curtail climate change emissions, the potency of emissions that have already built up, their long atmospheric lifetimes (see Table 5.6-1), and the inertia of the Earth's climate system could produce as much as 0.6°C (1.1°F) of additional warming. Consequently, some impacts from climate change are now considered unavoidable. Global climate change risks to California are shown in Table 5.6-2, *Summary of GHG Emissions Risks to California*, and include impacts to public health, water resources, agriculture, coastal sea level, forest and biological resources, and energy.

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**Table 5.6-2 Summary of GHG Emissions Risks to California**

Impact Category	Potential Risk
Public Health Impacts	Heat waves will be more frequent, hotter, and longer Fewer extremely cold nights Poor air quality made worse Higher temperatures increase ground-level ozone levels
Water Resources Impacts	Decreasing Sierra Nevada snowpack Challenges in securing adequate water supply Potential reduction in hydropower Loss of winter recreation
Agricultural Impacts	Increasing temperature Increasing threats from pests and pathogens Expanded ranges of agricultural weeds Declining productivity Irregular blooms and harvests
Coastal Sea Level Impacts	Accelerated sea level rise Increasing coastal floods Shrinking beaches Worsened impacts on infrastructure
Forest and Biological Resource Impacts	Increased risk and severity of wildfires Lengthening of the wildfire season Movement of forest areas Conversion of forest to grassland Declining forest productivity Increasing threats from pests and pathogens Shifting vegetation and species distribution Altered timing of migration and mating habits Loss of sensitive or slow-moving species
Energy Demand Impacts	Potential reduction in hydropower Increased energy demand

Sources: CEC 2006; CEC 2009; CCCC 2012; CNRA 2014.

Specific climate change impacts that could affect the state of California include:

- **Water Resources Impacts.** By late this century, all projections show drying, and half of the projections suggest 30-year average precipitation will decline by more than 10 percent below the historical average. This drying trend is caused by an apparent decline in the frequency of rain and snowfall. Even in projections with relatively small or no declines in precipitation, central and southern parts of the state can be expected to be drier from the warming effects alone—the spring snowpack will melt sooner, and the moisture in soils will evaporate during long dry summer months (CCCC 2012).
- **Wildfire Risks.** Earlier snowmelt, higher temperatures, and longer dry periods over a longer fire season will directly increase wildfire risk. Indirectly, wildfire risk will also be influenced by potential climate-related changes in vegetation and ignition potential from lightning. Human activities will continue to be the biggest factor in ignition risk. The number of large fires statewide is estimated to increase from 58 percent to 128

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percent above historical levels by 2085. Under the same emissions scenario, estimated burned area will increase by 57 percent to 169 percent, depending on location (CCCC 2012).

- **Health Impacts.** Many of the gravest threats to public health in California stem from the increase of extreme conditions—principally, more frequent, more intense, and longer heat waves. Particular concern centers on the increasing tendency for multiple hot days in succession and simultaneous heat waves in several regions throughout the state. Public health could also be affected by climate change impacts on air quality, food production, the amount and quality of water supplies, energy pricing and availability, and the spread of infectious diseases. Higher temperatures also increase ground-level ozone levels. Furthermore, wildfires can increase particulate air pollution in the major air basins of California (CCCC 2012).
- **Increase Energy Demand.** Increases in average temperature and higher frequency of extreme heat events combined with new residential development across the state will drive up the demand for cooling in the increasingly hot and longer summer season and decrease demand for heating in the cooler season. Warmer, drier summers also increase system losses at natural gas plants (reduced efficiency in the electricity generation process at higher temperatures) and hydropower plants (lower reservoir levels). Transmission of electricity will also be affected by climate change. Transmission lines lose 7 percent to 8 percent of transmitting capacity in high temperatures while needing to transport greater loads. This means that more electricity will need to be produced to make up for both the loss in capacity and the growing demand (CCCC 2012).

#### 5.6.1.2 REGULATORY BACKGROUND

Federal, state, and local laws, regulations, plans, or guidelines related to greenhouse gas emissions that are applicable to the proposed project are summarized in this section.

##### **Federal**

##### *United States Environmental Protection Agency*

The US Environmental Protection Agency (EPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings do not impose any emission reduction requirements, but allow the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation (USEPA 2009).

To regulate GHGs from passenger vehicles, EPA was required to issue an endangerment finding. The finding identified emissions of six key GHGs—CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, hydrofluorocarbons, perfluorocarbons, and SF<sub>6</sub>—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world. The first three are applicable to the proposed project's GHG emissions inventory because they constitute the majority of GHG emissions, and according to guidance by the South Coast AQMD, are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

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### *US Mandatory Reporting Rule for GHGs (2009)*

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 MTCO<sub>2</sub>e or more per year are required to submit an annual report.

### *Update to Corporate Average Fuel Economy Standards (2021 to 2026)*

The federal government issued new Corporate Average Fuel Economy (CAFE) standards in 2012 for model years 2017 to 2025, which required a fleet average of 54.5 miles per gallon (mpg) in 2025. On March 30, 2020, the EPA finalized an updated CAFE and GHG emissions standards for passenger cars and light trucks and established new standards covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021 to 2026. Under SAFE, the fuel economy standards will increase 1.5 percent per year compared to the 5 percent per year under the CAFE standards established in 2012. Overall, SAFE requires a fleet average of 40.4 miles per gallon (mpg) for model year 2026 vehicles (85 Federal Register 24174 (April 30, 2020)).

On December 21, 2021, under direction of Executive Order (EO) 13990 issued by President Biden, the National Highway Traffic Safety Administration repealed Safer Affordable Fuel Efficient Vehicles Rule Part One, which had preempted state and local laws related to fuel economy standards. In addition, on March 31, 2022, the National Highway Traffic Safety Administration finalized new fuel standards in response to EO 13990. Fuel efficiency under the standards proposed will increase 8 percent annually for model years 2024 to 2025 and 10 percent annual for model year 2026. Overall, the new CAFE standards require a fleet average of 49 mpg for passenger vehicles and light trucks for model year 2026, which would be a 10 mpg increase relative to model year 2021 (NHTSA 2022).

### **State**

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in EO S-03-05 and EO B-30-15, EO B-55-18, Assembly Bill 32 (AB 32), Senate Bill 32 (SB 32), and SB 375.

### *Executive Order S-03-05*

EO S-03-05 was signed June 1, 2005, and set the following GHG reduction targets for the state:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

### *Assembly Bill 32, the Global Warming Solutions Act (2006)*

AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in EO S-03-05. CARB prepared the 2008 Scoping Plan to outline a plan to achieve the GHG emissions reduction targets of AB 32.

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#### *Executive Order B-30-15*

EO B-30-15, signed April 29, 2015, set a goal of reducing GHG emissions within the state to 40 percent of 1990 levels by year 2030. EO B-30-15 also directed CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the state and requires state agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in EO S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaptation strategy, “Safeguarding California,” to ensure climate change is accounted for in State planning and investment decisions.

#### *Senate Bill 32 and Assembly Bill 197*

In September 2016, Governor Brown signed SB 32 and AB 197 into law, making the EO B-30-15 goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires CARB to prioritize direct emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

#### *Executive Order B-55-18*

Executive Order B-55-18, signed September 10, 2018, sets a goal “to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter.” Executive Order B-55-18 directs CARB to work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions should be offset by equivalent net removals of CO<sub>2e</sub> from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

#### *Assembly Bill 1279*

On August 31, 2022, the California Legislature passed AB 1279, which requires California to achieve net-zero GHG emissions no later than 2045 and to achieve and maintain negative GHG emissions thereafter. Additionally, AB 1279 also establishes a GHG emissions reduction goal of 85 percent below 1990 levels by 2045. CARB will be required to update the Scoping Plan to identify and recommend measures to achieve the net-zero and GHG emissions-reduction goals.

#### *2022 Climate Change Scoping Plan*

CARB adopted the *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) on December 15, 2022, which lays out a path to achieve carbon neutrality by 2045 or earlier and to reduce the state’s anthropogenic GHG emissions (CARB 2022). The Scoping Plan provides updates to the previously adopted 2017 Scoping Plan and addresses the carbon neutrality goals of EO B-55-18 and the ambitious GHG reduction target as directed by AB 1279. Previous Scoping Plans focused on specific GHG reduction targets for our industrial, energy, and transportation sectors—to meet 1990 levels by 2020, and then the more aggressive 40 percent below that for the 2030 target. The 2022 Scoping Plan updates the target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. Carbon neutrality takes it one step further by expanding actions to

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capture and store carbon, including through natural and working lands and mechanical technologies, and drastically reducing anthropogenic sources of carbon pollution at the same time.

The path forward was informed by the recent Sixth Assessment Report (AR6) of the IPCC and the measures would achieve 85 percent below 1990 levels by 2045 in accordance AB 1279. CARB’s 2022 Scoping Plan identifies strategies, as shown in Table 5.6-3, *Priority Strategies for Local Government Climate Action Plans*, which would be most impactful at the local level for ensuring substantial progress toward the State’s carbon neutrality goals.

**Table 5.6-3 Priority Strategies for Local Government Climate Action Plans**

Priority Area	Priority Strategies
Transportation Electrification	Convert local government fleets to zero-emission vehicles (ZEV) and provide EV charging at public sites.
	Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed state building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans).
VMT Reduction	Reduce or eliminate minimum parking standards.
	Implement Complete Streets policies and investments, consistent with general plan circulation element requirements.
	Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, micro transit, etc.
	Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking
	Implement parking pricing or transportation demand management pricing strategies.
	Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing allowable density of the neighborhood).
	Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert “greenfield” land to urban uses (e.g., green belts, strategic conservation easements)
Building Decarbonization	Adopt all-electric new construction reach codes for residential and commercial uses.
	Adopt policies and incentive programs to implement energy efficiency retrofits for existing buildings, such as weatherization, lighting upgrades, and replacing energy-intensive appliances and equipment with more efficient systems (such as Energy Star-rated equipment and equipment controllers).
	Adopt policies and incentive programs to electrify all appliances and equipment in existing buildings such as appliance rebates, existing building reach codes, or time of sale electrification ordinances <sup>1</sup> .
	Facilitate deployment of renewable energy production and distribution and energy storage on privately owned land uses (e.g., permit streamlining, information sharing) <sup>1</sup> .
	Deploy renewable energy production and energy storage directly in new public projects and on existing public facilities (e.g., solar photovoltaic systems on rooftops of municipal buildings and on canopies in public parking lots, battery storage systems in municipal buildings) <sup>1</sup> .

Source: CARB 2022.

The first approach that the State recommends for proposed land use developments to demonstrate that they are aligned with State climate goals is based on the attributes of land use development that reduce operational GHG emissions while simultaneously advancing fair housing (CARB 2022). If the first approach to demonstrating consistency is not applicable, the second approach to project-level alignment with state climate

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goals is to achieve net zero GHG emissions. The third approach to demonstrating project-level alignment with state climate goals is to align with GHG thresholds of significance, which many local air quality management districts and air pollution control districts have developed or adopted (CARB 2022). The proposed project is within the jurisdiction of South Coast AQMD, which has identified a screening-level threshold of 3,000 MTCO<sub>2e</sub> annually for all land use types.

#### *Senate Bill 375*

SB 375, the Sustainable Communities and Climate Protection Act, was adopted in 2008 to connect the GHG emissions reduction targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce vehicle miles traveled (VMT) and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPO). The Southern California Association of Governments (SCAG) is the MPO for the Southern California region, which includes Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial counties. Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target.

#### *2017 Update to the SB 375 Targets*

CARB is required to update the targets for the MPOs every eight years. CARB adopted revised SB 375 targets for the MPOs in March 2018. The updated targets became effective in October 2018. All SCSs adopted after October 1, 2018, are subject to these new targets. CARB's updated SB 375 targets for the SCAG region were an 8 percent per capita GHG reduction in 2020 from 2005 levels (unchanged from the 2010 target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 13 percent) (CARB 2018).

The targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update (for SB 32), while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. Like the 2010 targets, the updated SB 375 targets are in units of “percent per capita” reductions in GHG emissions from automobiles and light trucks relative to 2005; this excludes reductions anticipated from implementation of state technology and fuels strategies and any potential future state strategies, such as statewide road user pricing. The proposed targets call for greater per-capita GHG emission reductions from SB 375 than are currently in place, which for 2035 translate into proposed targets that either match or exceed the emission reduction levels in the MPOs’ currently adopted SCSs to achieve the SB 375 targets. CARB foresees that the additional GHG emissions reductions in 2035 may be achieved from land use changes, transportation investment, and technology strategies (CARB 2018).

#### *Other Related Regulations*

Table 5.6-4 provides a summary list of other regulations in California that reduce GHG emissions.

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**Table 5.6-4 Other Applicable State GHG Regulations**

Sector	Regulation	Description
Transportation	Advanced Clean Fleets and Advanced Clean Trucks	CARB adopted the Advanced Clean Fleets (ACF) regulation in 2023 to accelerate the transition to zero-emission medium- and heavy-duty vehicles. In conjunction with the Advanced Clean Trucks (ACT) regulation, the ACF regulations helps to ensure that medium- and heavy-duty zero-emission vehicles (ZEV) are brought to the market, by requiring certain fleets to purchase zero emission vehicles (ZEVs). The ACF ZEV phase-in approach which provides initial focus where the best fleet electrification opportunities exist, sets clear targets for regulated fleets to make a full conversion to ZEVs, and creates a catalyst to accelerate development of a heavy-duty public charging infrastructure network.
	Assembly Bill 1493	AB 1493 (Pavley I) Reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016.
	Executive Order S-01-07	Established declining LCFS for transportation fuels sold in the state. The LCFS requires a reduction of 2.5 percent in the carbon intensity of California’s transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applies to refiners, blenders, producers, and importers of transportation fuels, and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the “fuel cycle” using the most economically feasible methods.
	Executive Order B-16-2012	Established benchmarks to accommodate zero-emissions vehicles in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle charging stations). The executive order also directed the number of zero-emissions vehicles in California’s state vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are ZE by 2015 and at least 25 percent by 2020. The executive order also established a target for the transportation sector of reducing GHG emissions 80 percent below 1990 levels by 2020.
	Executive Order N-79-20	Establishes a time frame for the transition to zero-emission passenger vehicles and trucks in addition to off-road equipment. It directs CARB to develop the following: 1) Passenger vehicle and truck regulations requiring increasing volumes of new zero emission vehicles sold California toward the target of 100 percent of in-state sales buy 2035; 2) Medium- and heavy-duty vehicle regulations requiring increasing volumes of new ZE trucks and buses sold and operated in California toward the target of 100 percent of the fleet transitioning to ZEVs by 2045 everywhere feasible, and for all drayage trucks to be ZE by 2035; Strategies to achieve 100 percent zero emission from all off-road vehicles and equipment operations in California by 2035, in cooperation with other State agencies, the Environmental Protection Agency, and local air districts.
Renewable Energy	SB 107, SB X1-2, Executive Order S-14-08,	Renewables Portfolio Standard. Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. Executive Order S-14-08, signed in November 2008, expanded the state’s renewable energy standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2).
	SB 350	Established tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.
	SB 100	RPS for publicly owned facilities and retail sellers will consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. SB 100 also established a new RPS requirement of 50 percent by 2026. Furthermore, the bill establishes an overall state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.
	Executive Order B-55-18	Executive Order B-55-18, signed September 10, 2018, sets a goal “to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter.” Executive Order B-55-18 directs CARB to work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should

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**Table 5.6-4 Other Applicable State GHG Regulations**

Sector	Regulation	Description
		emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO <sub>2</sub> e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.
	Senate Bill 1020	SB 1020 was signed into law on September 16, 2022. It requires renewable energy and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035 and 95 percent by 2040. Additionally, SB 1020 requires all state agencies to procure 100 percent of electricity from renewable energy and zero-carbon resources by 2035.
Energy Efficiency	Title 24, Part 6, Building Energy Efficiency Standards	Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 (24 CCR, Part 6). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The 2022 Building Energy Efficiency Standards were approved by the California Building Standards Commission in December 2021. The 2022 standards became effective and replaced the existing 2019 standards on January 1, 2023. The 2022 standards require mixed-fuel single-family homes to be electric-ready to accommodate replacement of gas appliances with electric appliances. In addition, the new standards also include prescriptive photovoltaic system and battery requirements for high-rise, multifamily buildings (i.e., more than three stories) and noncommercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers (CEC 2021).
	Title 24, Part 11, Green Building Standards Code (CALGreen)	On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11), or "CALGreen," was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The mandatory provisions of CALGreen became effective January 1, 2011, and were last updated in 2022. The 2022 CALGreen standards became effective January 1, 2023.
	Title 20, Appliance Efficiency Regulations	The 2006 Appliance Efficiency Regulations (20 CCR §§ 1601–1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances. Though these regulations are now often viewed as "business as usual," they exceed the standards imposed by all other states, and they reduce GHG emissions by reducing energy demand.
Solid Waste	AB 939	California's Integrated Waste Management Act of 1989, AB 939 (Public Resources Code §§ 40050 et seq.) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the act requires that each city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.
	AB 341	AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multifamily residential land uses. Section 5.408 of CALGreen also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.
	AB 1327	The California Solid Waste Reuse and Recycling Access Act, AB 1327 (Public Resources Code §§ 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

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**Table 5.6-4 Other Applicable State GHG Regulations**

Sector	Regulation	Description
	AB 1826	In October of 2014, Governor Brown signed AB 1826 requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses and multifamily residential dwellings with five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed with food waste.
Water	SBX7-7	The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to Senate Bill 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed “SBX7-7.” SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 required urban water providers to adopt a water conservation target of 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.
	AB 1881	The Water Conservation in Landscaping Act of 2006, AB 1881 requires local agencies to adopt the updated DWR model ordinance or an equivalent. AB 1881 also requires the CEC to consult with the DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.
Short-Lived Climate Pollutants	SB 1383	On September 19, 2016, the governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and methane (CH <sub>4</sub> ). Black carbon is the light-absorbing component of fine particulate matter produced during incomplete combustion of fuels. SB 1383 required the state board, no later than January 1, 2018, to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The bill also established targets for reducing organic waste in landfills, which includes a 50 percent reduction in statewide organic waste disposal from 2014 levels by 2020 and a 75 percent reduction from 2014 levels by 2025. Under SB 1383, jurisdictions are required to implement organic waste collection services for all residents and businesses by January 1, 2022. On March 14, 2017, CARB adopted the Short-Lived Climate Pollutant Reduction Strategy, which identifies the state’s approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s, despite the tripling of diesel fuel use (CARB 2017). In-use, current legislation is expected to reduce black carbon emissions by 50 percent below 2013 levels by 2030 (CARB 2023).

**Regional**

*SCAG’s 2020-2045 Regional Transportation Plan/ Sustainable Communities Strategy*

SB 375 requires each MPO to prepare a sustainable communities strategy in its regional transportation plan. For the SCAG region, the 2020-2045 RTP/SCS, Connect SoCal, was adopted on September 3, 2020, and is an update to the 2016-2040 RTP/SCS (SCAG 2020). In general, the RTP/SCS outlines a development pattern for the region that, when integrated with the transportation network and other transportation measures and policies, would reduce VMT from automobiles and light duty trucks and thereby reduce GHG emissions from these sources.

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Connect SoCal focuses on the continued efforts of the previous RTP/SCSs to integrate transportation and land use strategies in development of the SCAG region through the horizon year 2045 (SCAG 2020). Connect SoCal forecasts that the SCAG region will meet its GHG per capita reduction targets of 8 percent by 2020 and 19 percent by 2035. It also forecasts that implementation of the plan will reduce VMT per capita in year 2045 by 4.1 percent compared to baseline conditions for that year. Connect SoCal includes a “Core Vision” that centers on maintaining and better managing the transportation network for moving people and goods, while expanding mobility choices by locating housing, jobs, and transit closer together; and increasing investments in transit and complete streets (SCAG 2020).

#### 5.6.1.3 EXISTING CONDITIONS

##### California's GHG Sources and Relative Contribution

In 2021, the statewide GHG emissions inventory was updated for 2000 to 2019 emissions using the GWPs in IPCC's AR4 (IPCC 2013). Based on these GWPs, California produced 418.2 MMTCO<sub>2e</sub> GHG emissions in 2019. California's transportation sector was the single largest generator of GHG emissions, producing 39.7 percent of the state's total emissions. Industrial sector emissions made up 21.1 percent, and electric power generation made up 14.1 percent of the state's emissions inventory. Other major sectors of GHG emissions include commercial and residential (10.5 percent), agriculture and forestry (7.6 percent), high GWP (4.9 percent), and recycling and waste (2.1 percent) (CARB 2021).

Since the peak level in 2004, California's GHG emissions have generally followed a decreasing trend. In 2016, California statewide GHG emissions dropped below the AB 32 target for year 2020 of 431 MMTCO<sub>2e</sub> and have remained below this target since then. In 2019, emissions from routine GHG-emitting activities statewide were almost 13 MMTCO<sub>2e</sub> lower than the AB 32 target for year 2020. Per-capita GHG emissions in California have dropped from a 2001 peak of 14.0 MTCO<sub>2e</sub> per person to 10.5 MTCO<sub>2e</sub> per person in 2019, a 25 percent decrease.

Transportation emissions continued to decline in 2019 statewide as they had done in 2018, with even more substantial reductions due to a significant increase in renewable diesel. Since 2008, California's electricity sector has followed an overall downward trend in emissions. In 2019, solar power generation continued its rapid growth since 2013. Emissions from high-GWP gases comprised 4.9 percent of California's emissions in 2019. This continues the increasing trend as the gases replace ozone-depleting substances being phased out under the 1987 Montreal Protocol. Overall trends in the inventory also demonstrate that the carbon intensity of California's economy (the amount of carbon pollution per million dollars of gross domestic product) has declined 45 percent since the 2001 peak, though the state's gross domestic product grew 63 percent during this period (CARB 2021).

##### Existing Emissions

At the time of the Notice of Preparation for this Draft EIR, reclamation of the former landfill was underway in accordance with the August 22, 2022, Operations Plan as approved by the Regional Water Quality Control Board (see Section 3.3.1.1, *Project Background*, of this DEIR). The site reclamation includes the removal/demolition of any remaining structures, addressing the existing landfill, and rough grading the project

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site. The grading plan associated with the reclamation has been approved by the County of Los Angeles Department of Public Works. This includes any applicable environmental review pursuant to CEQA. The approval and implementation of these activities serve as baseline (existing) conditions for analysis of potential environmental impacts in this DEIR. Therefore, for analysis purposes, it is assumed that the site does not generate any GHG emissions under existing conditions.

### 5.6.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

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

#### 5.6.2.1 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

South Coast AQMD adopted a significance threshold of 10,000 MTCO<sub>2e</sub> per year for permitted (stationary) sources of GHG emissions for which South Coast AQMD is the designated lead agency. To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, South Coast AQMD convened a GHG CEQA Significance Threshold Working Group. Based on the last Working Group meeting in September 2010 (Meeting No. 15), the South Coast AQMD Working Group identified a tiered approach for evaluating GHG emissions for development projects where South Coast AQMD is not the lead agency (South Coast AQMD 2010a). The following tiered approach has not been formally adopted by South Coast AQMD.

- **Tier 1.** If a project is exempt from CEQA, project-level and contribution to significant cumulative GHG emissions are less than significant.
- **Tier 2.** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (e.g., city or county), project-level and contribution to significant cumulative GHG emissions are less than significant.
- **Tier 3.** If GHG emissions are less than the screening-level criterion, project-level and contribution to significant cumulative GHG emissions are less than significant.

For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, South Coast AQMD Working Group requires an assessment of GHG emissions. Project-related GHG emissions include on-road transportation, energy use, water use, wastewater generation, solid waste disposal, area sources, off-road emissions, and construction activities. The South Coast AQMD Working Group decided that because construction activities would result in a "one-time" net increase in GHG emissions, construction activities should be amortized into the operational phase GHG emissions inventory based on

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the service life of a building. For buildings in general, it is reasonable to look at a 30-year time frame, since this is a typical interval before a new building requires the first major renovation. South Coast AQMD Working Group identified a screening-level threshold of 3,000 MTCO<sub>2e</sub> annually for all land use types (bright-line screening level). The bright-line screening-level criteria are based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds. Therefore, projects that do not exceed the bright-line threshold would have a nominal and less than cumulatively considerable impact on GHG emissions. South Coast AQMD Working Group recommends use of the 3,000 MTCO<sub>2e</sub> interim bright-line screening-level criterion for all project types (South Coast AQMD 2010b).

- **Tier 4.** If emissions exceed the screening threshold, a more detailed review of the project's GHG emissions is warranted.

The South Coast AQMD Working Group's bright-line screening-level criterion of 3,000 MTCO<sub>2e</sub> per year is used as the significance threshold for the proposed project. If the project operation-phase emissions exceed this criterion, GHG emissions would be considered potentially significant without mitigation measures.

#### 5.6.2.2 MASS EMISSIONS AND HEALTH EFFECTS

On December 24, 2018, in *Sierra Club et al. v. County of Fresno et al.* (Friant Ranch), the California Supreme Court determined that the EIR for the proposed Friant Ranch project failed to adequately analyze the project's air quality impacts on human health. The EIR prepared for the project, which involved a master planned retirement community in Fresno County, showed that project-related mass emissions would exceed the San Joaquin Valley Air Pollution Control District's regional significance thresholds. In its findings, the California Supreme Court affirmed the holding of the Court of Appeal that EIRs for projects must not only identify impacts to human health, but also provide an "analysis of the correlation between the project's emissions and human health impacts" related to each criterion air pollutant that exceeds the regional significance thresholds or explain why it could not make such a connection. In general, the ruling focuses on the correlation of emissions of toxic air contaminants and criteria air pollutants and their impact to human health.

In 2009, the EPA issued an endangerment finding for six GHGs—CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and SF<sub>6</sub>—to regulate GHG emissions from passenger vehicles. The endangerment finding is based on evidence that shows an increase in mortality and morbidity associated with increases in average temperatures, which increase the likelihood of heatwaves and ozone levels. The effects of climate change are identified in Table 5.6-2. Though identified effects such as sea level rise and increased extreme weather can indirectly impact human health, neither the EPA nor CARB has established ambient air quality standards for GHG emissions. The state's GHG reduction strategy outlines a path to avoid the most catastrophic effects of climate change. Yet the state's GHG reduction goals and strategies are based on the state's path toward reducing statewide cumulative GHGs as outlined in AB 32, SB 32, and EO S-03-05.

Because no single project is large enough to result in a measurable increase in global concentration of GHG emissions, climate change impacts of a project are considered on a cumulative basis. Without federal ambient air quality standards for GHG emissions and given the cumulative nature of GHG emissions and the District's

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significance thresholds, which are tied to reducing the state's cumulative GHG emissions, it is not feasible at this time to connect the project's specific GHG emissions to the potential health impacts of climate change.

### 5.6.3 Applicable Specific Plan Development Standards and Design Guidelines

#### 5.6.3.1 DEVELOPMENT STANDARDS

There are no specific Irwindale Gateway Specific Plan Development Standards specifically related to greenhouse gas.

#### 5.6.3.2 DESIGN GUIDELINES

Objective 7 of the Irwindale Gateway Specific Plan Design Guidelines (see Section 7.1) would encourage the implementation of energy efficient building design features that can be implemented in the site planning, design, and construction phases of the Specific Plan to minimize waste deposited at landfills, decrease energy use and fossil fuel consumption, and reduce domestic water consumption. Also, under Section 7.7, Lighting, the design guidelines state that low intensity, energy-conserving night lighting is preferred, such as fixtures equipped with light emitting diodes (LED), which would help minimize energy-related GHG impacts.

### 5.6.4 Environmental Impacts

The proposed project consists of two potential site plans. Under Option 1, the proposed project would result in the development an industrial logistics and distribution center with three buildings and associated parking and loading docks, which includes 387,500 square feet of refrigerated space<sup>4</sup> and 610,296 square feet of unrefrigerated space, for a total of 982,796 square feet of industrial space over 68.1 acres.<sup>5</sup> Proposed project development under Option 2 would involve construction and operation of two industrial buildings on a 36.95-acre Industrial/Business Park parcel, which includes 387,500 square feet of refrigerated space<sup>6</sup> and 316,570 square feet of unrefrigerated space, for a total of 704,070 square feet of industrial space. Option 2 would also result in the development of a 15.95-acre parcel for the 400-megawatt BESS. An interconnection facility would be developed at the Southern California Edison Rio Hondo substation, across Live Oak Avenue, to connect the BESS to the transmission system. The electric tie-line to connect the BESS across Live Oak Avenue would consist of three 220 kV conductor cables below an optical ground wire that serves the dual purposes of grounding and fiber optic communications.

The following methodology is described for both Option 1 and Option 2.

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<sup>4</sup> Based on the preliminary data in the Specific Plan, both Option 1 and Option 2 are assumed to include 387,500 square feet of refrigerated space.

<sup>5</sup> Development of 982,796 square-feet of industrial space under Option 1 is based on the latest project data from the Applicant. Modeling for the proposed project utilizes 997,796 square feet of industrial space, which is based on preliminary data received from the Applicant.

<sup>6</sup> Based on the preliminary data in the Specific Plan, both Option 1 and Option 2 are assumed to include 387,500 square feet of refrigerated space.

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#### 5.6.4.1 METHODOLOGY

This GHG evaluation was prepared in accordance with the requirements of CEQA to determine if significant GHG impacts are likely in conjunction with implementation of the proposed project. South Coast AQMD has published guidelines that are intended to provide local governments with guidance for analyzing and mitigating environmental impacts, and they were used in this analysis. The analysis in this section is based on buildout of the proposed project as modeled using CalEEMod, version 2022.1, for the following sectors.

#### Construction Phase

Construction would entail site preparation, rough grading, fine grading, utilities trenching, building construction, paving, architectural coating, and finishing and landscaping as well as off-site improvements and sewer and storm drain construction on the 68.1-acre project site. Off-site improvements would occur over 12 months between January 2025 and January 2026. The sewer and storm drain construction would occur between January 2025 and December 2025 for the public portion and between September 2026 and August 2027 for the private portion of the project site. Two options for the proposed project building construction were modeled, with both Option 1 and Option 2 occurring over a period of 37 months, starting in July 2024 and ending in August 2027. Annual construction emissions were amortized over 30 years and included in the emissions inventory to account for one-time GHG emissions from the construction phase of the proposed project.

#### Operational Phase

- **Transportation.** The primary source of mobile greenhouse gas emissions is from the combustion of fuel (i.e., gasoline and diesel). Under Option 1, the proposed project would generate up to 550 truck trips<sup>7</sup> and 1,508 passenger trips for a total of 2,058 nonpassenger-equivalent trips per day. Under Option 2, the proposed project would generate up to 418 truck trips and 1,093 passenger trips for a total of 1,511 nonpassenger-equivalent trips per day (Appendix L1). Modeling utilized an average trip length of 39.9 miles per trip, which is derived from SCAG's Heavy-Duty Truck Regional Travel Demand model and represents the average Class 8 truck trip distance within the SoCAB (South Coast AQMD 2021). Where information was not provided, CalEEMod default trip lengths were used. Project-related on-road GHG emissions are based on year 2027 emission rates for the proposed project's buildout year.
- **Area Sources.** Area sources generated from use of consumer products and cleaning supplies are based on CalEEMod default emission rates and on the assumed building and land use square footages.
- **Transport Refrigeration Units.** Emissions from transport refrigeration units (TRUs) are based on the operation of 107 trucks with TRUs per day for Option 1<sup>8</sup> and 115 trucks with TRUs per day for Option 2,<sup>9</sup>

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<sup>7</sup> For the most conservative results, all truck trips have been assumed to be associated with heavy-heavy duty trucks.

<sup>8</sup> Option 1 assumes that there would be 387,500 square feet of refrigerated space (39 percent of total building space) and 610,296 square feet of unrefrigerated space (61 percent of total building space). Total truck trips have been proportioned between the refrigerated and unrefrigerated space for a total of 275 trucks, 107 with TRUs.

<sup>9</sup> Option 2 assumes that there would be 387,500 square feet of refrigerated space (55 percent of total building space) and 316,570 square feet of unrefrigerated space (45 percent of total building space). Total truck trips have been proportioned between the refrigerated and unrefrigerated space for a total of 209 trucks, 115 with TRUs.

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30 minutes of idling per unit, and calendar year 2027 aggregated Instate Trailer TRU emission rates obtained from OFFROAD2021, Version 1.0.4.<sup>10</sup>

- **Off-Road Equipment.** It is anticipated the proposed project would utilize up to 53 diesel-powered forklifts and 4 yard trucks for daily operations for Option 1 and up to 37 diesel-powered forklifts and 3 yard trucks for daily operations for Option 2. The yard trucks would consist of diesel-powered units that would operate for 8 hours per day and 365 days per year.<sup>11</sup> Diesel-powered forklift and yard truck emissions are based on calendar year 2027 OFFROAD2021, Version 1.0.4, emission factors for a 100-horsepower industrial forklift and 175-horsepower port yard tractor, respectively. The proposed project would also require use of emergency generators and equipment, which would be utilized for approximately 50 hours per year. Emergency generators and equipment were modeled using OFFROAD2021, Version 1.0.4, emission factors. for 50-horsepower equipment.
- **Energy.** The California Emissions Estimator Model (CalEEMod) Version 2022.1 default energy (i.e., electricity and natural gas) rates for nonresidential land uses are based on the California Energy Commission's 2018-2030 Uncalibrated Commercial Sector Forecast (commercial forecast), which was compiled by the CEC in 2019. Use of the CalEEMod default energy rates results in conservative estimates compared to the recently adopted 2022 Building Energy Efficiency Standards because the commercial forecast is based on the energy demand per square foot of building space, land use subtype, and end use for the year 2019. It is anticipated that new buildings under the 2022 Standards would generally result in lower electricity use. Furthermore, the carbon intensity factor is based on the CO<sub>2e</sub> intensity factor of 452 pounds per megawatt-hour (lbs/MWh), as reported in Southern California Edison's 2021 Sustainability Report (SCE 2022). Overall, using the AR4 GWPs and the default CalEEMod intensity factors of 0.033 lb/MWh for CH<sub>4</sub> and 0.004 lb/MWh for N<sub>2</sub>O, the adjusted intensity factor for CO<sub>2</sub> is 449.98 lbs/MWh.
- **Solid Waste Disposal.** Indirect emissions from waste generation are based on a total daily solid waste generation of 1.42 pounds per thousand square feet per day (see Section 5.17, *Utilities and Service Systems*, for further details).
- **Water/Wastewater.** Water use and wastewater generation is based on the water supply and demand analysis in Section 5.17, *Utilities and Service Systems*. Wastewater generation is estimated to be 131,761 gallons per day or 48,092,765 gallons per year, and outdoor water use is estimated to be 20,355 per day or 7,429,575 gallons per year for both Option 1 and Option 2.

Life cycle emissions are not included in the GHG analysis, consistent with California Resources Agency directives.<sup>12</sup> Black carbon emissions are not included in the GHG analysis because CARB does not include this

<sup>10</sup> The estimated cold storage space of 387,500 square feet provided by the applicant was utilized for both Option 1 and Option 2 for the most conservative TRU estimates. Because the cold storage space would take up a higher proportion of building space under Option 2, Option 2 is assumed to have a greater number of TRUs. See Appendix D1 for calculations.

<sup>11</sup> Based on 3.6-yard trucks per million square feet of building space (South Coast AQMD 2014).

<sup>12</sup> Life cycle emissions include indirect emissions associated with materials manufacture. However, these indirect emissions involve numerous parties, each of which is responsible for GHG emissions of their particular activity. The California Resources Agency, in

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short-lived climate pollutant in the state's AB 32 inventory but treats it separately.<sup>13</sup> Additionally, while not anticipated, industrial sources of emissions that require a permit from South Coast AQMD (permitted sources) are not included in the proposed project's community inventory since they have separate emission reduction requirements. GHG modeling is included in Appendix D1 of this DEIR.

#### 5.6.4.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the Notice of Preparation disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.7-1: The proposed project would generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment. [Threshold GHG-1]**

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Global climate change is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough greenhouse gas emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact.

Operation of the proposed project would result in an increase in water demand, wastewater and solid waste generation, area sources (e.g., consumer cleaning products), refrigerants, and energy use. Implementation of the proposed project would result in the development of 997,796 square feet of industrial space under Option 1. Operation of development accommodated by under Option 1 would generate up to 2,058 trips per day (nonpassenger equivalent) consisting of 1,508 passenger vehicle trips and 550 heavy-heavy duty truck trips.

Proposed project development under Option 2 would involve construction and operation of a BESS facility and 704,070 square feet of industrial space. Under Option 2, the proposed project would generate up to 418 truck trips and 1,093 passenger trips for a total of 1,511 trips per day. In addition, operation of the BESS under Option 2 would consume electricity to power its components and to charge its batteries, which would generate GHG emissions.<sup>14</sup> However, as the BESS facility would store excess electricity from the grid for use at a later time, it would lower the need for electricity generated from nonrenewable sources, thereby resulting in a

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adopting the CEQA Guidelines Amendments on GHG emissions found that lifecycle analyses was not warranted for project-specific CEQA analysis in most situations, for a variety of reasons, including lack of control over some sources, and the possibility of double-counting emissions (see Final Statement of Reasons for Regulatory Action, December 2009). Because the amount of materials consumed during the operation or construction of the proposed project is not known, the origin of the raw materials purchased is not known, and manufacturing information for those raw materials are also not known, calculation of life cycle emissions would be speculative. A life-cycle analysis is not warranted (OPR 2008).

<sup>13</sup> Particulate matter emissions, which include black carbon, are analyzed in Section 5.3, *Air Quality*. Black carbon emissions have sharply declined due to efforts to reduce on-road and off-road vehicle emissions, especially diesel particulate matter. The State's existing air quality policies will virtually eliminate black carbon emissions from on-road diesel engines within 10 years (CARB 2017a).

<sup>14</sup> The BESS facility would result in minor GHG emissions due to occasional vehicle trips for maintenance and periodic testing of the emergency generator but would store electricity generated when excess generation capacity is available for use when needed thereby increasing use of intermittent renewable energy generation. Increased use of intermittent renewable energy is expected to result in a net reduction in GHG from operation of the BESS. However, the expected net reduction in GHG from operation of the BESS cannot be predicted accurately and, therefore, in this analysis the GHG emissions from the BESS portion of Option 2 are assumed to be zero.

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reduction in GHG generation from such sources. Furthermore, the BESS, along with the installation of other battery energy storage facilities, would contribute to CARB’s goal for reaching 100 percent renewable energy production, thereby reducing GHG emissions from energy production.

The amount of energy derived from nonrenewable sources available on the electric grid that is used to charge the project’s batteries is “too speculative for evaluation” (CEQA Guidelines, Section 15145). The same is true for any attempt to evaluate the amount of GHG emissions caused by the project’s charging from nonrenewable sources available on the electric grid. Thus, any attempt to quantify indirect GHG emissions from the project would be too speculative to be of real value and thus is not required by CEQA.

Annual average construction emissions were amortized over 30 years and included in the emissions inventory to account for one-time GHG emissions from the construction phase of development accommodated by the proposed project. The proposed construction- and operation-related emissions of development accommodated by the proposed project are quantified and shown in Table 5.6-5, *Project-Related GHG Emissions (Option 1)*, and Table 5.6-6, *Project-Related GHG Emissions (Option 2)*. As demonstrated in the tables, development and operation associated with the proposed project’s annual emissions would exceed the South Coast AQMD bright-line threshold of 3,000 metric tons of carbon dioxide equivalent (MTCO<sub>2e</sub>) per year (South Coast AQMD 2010). Therefore, GHG emissions generated by the project would be considered to cumulatively contribute to statewide GHG emissions, and impacts are potentially significant.

**Table 5.6-5 Project-Related GHG Emissions (Option 1)**

Source	GHG Emissions	
	MTCO <sub>2e</sub> per Year	Percentage
Mobile (Truck)	12,649	54%
Mobile (Passenger)	3,080	13%
Area	20	<1%
Energy	3,410	15%
Water	105	<1%
Solid Waste	81	<1%
Refrigerants	1,710	7%
TRUs	597	3%
Off-Road Equipment	1,650	7%
Amortized Construction Emissions <sup>1</sup>	153	1%
<b>Total</b>	<b>22,670</b>	<b>100%</b>
South Coast AQMD Bright-Line Threshold	3,000 MTCO <sub>2e</sub> /Yr	NA
<b>Exceeds Bright-Line Threshold?</b>	<b>Yes</b>	NA

Source: CalEEMod, Version 2022.1.

Notes: MTCO<sub>2e</sub> = metric ton of carbon dioxide equivalent

<sup>1</sup> Total construction emission are amortized over 30 years per South Coast AQMD methodology (South Coast AQMD 2009).

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**Table 5.6-6 Project-Related GHG Emissions (Option 2)**

Source	GHG Emissions	
	MTCO <sub>2e</sub> per Year	Percentage
Mobile (Truck)	9,544	53%
Mobile (Passenger)	1,949	11%
Area	14	<1%
Energy	2,786	15%
Water	105	1%
Solid Waste	57	<1%
Refrigerants	1,710	9%
TRUs	638	4%
Off-Road Equipment	1,156	6%
Amortized Construction Emissions <sup>1,2</sup>	128	1%
<b>Total</b>	<b>17,874</b>	<b>100%</b>
South Coast AQMD Bright-Line Threshold	3,000 MTCO <sub>2e</sub> /Yr	NA
<b>Exceeds Bright-Line Threshold?</b>	<b>Yes</b>	NA

Source: CalEEMod, Version 2022.1.

Notes: MTCO<sub>2e</sub> = metric ton of carbon dioxide equivalent

<sup>1</sup> Total construction emission are amortized over 30 years per South Coast AQMD methodology (South Coast AQMD 2009).

<sup>2</sup> The connection of the BESS use to the off-site interconnection facilities is assumed to utilize the same equipment as the off-site roadway improvements. Therefore, construction of these transmission lines would not result in emissions higher than already modeled under the linear construction phases.

**Level of Significance Before Mitigation:** Potentially significant.

**Impact 5.7-2: The proposed project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. [Threshold GHG-2]**

Applicable plans adopted for the purpose of reducing GHG emissions include CARB's Scoping Plan and the SCAG's RTP/SCS. A consistency analysis with these plans is presented below.

### CARB 2022 Scoping Plan

CARB's latest Climate Change Scoping Plan (2022) outlines the State's strategies to reduce GHG emissions in accordance with the targets established under AB 32, SB 32, and AB 1279. The Scoping Plan is applicable to State agencies and is not directly applicable to cities/counties and individual projects. However, new regulations adopted by the state agencies outlined in the Scoping Plan result in GHG emissions reductions at the local level. As a result, local jurisdictions benefit from reductions in transportation emissions rates, increases in water efficiency in the building and landscape codes, and other statewide actions that would affect a local jurisdiction's emissions inventory from the top down.

Statewide strategies to reduce GHG emissions include the low carbon fuel standards, California Appliance Energy Efficiency regulations, California Renewable Energy Portfolio standard, changes in the CAFE standards, and other early action measures as necessary to ensure the State is on target to achieve the GHG

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emissions reduction goals of AB 32, SB 32, and AB 1279. In addition, new developments are required to comply with the current Building Energy Efficiency Standards and CALGreen. The proposed project would comply with these GHG emissions reduction measures since they are statewide strategies. Under Option 2, the proposed project would develop a BESS that would store excess electricity generated from renewable sources for use at a later time and would reduce GHG emissions from energy use in the state. In addition, operation of the BESS would further CARB's goals for 100 percent renewable energy production. The proposed project's GHG emissions would be reduced by compliance with statewide measures that have been adopted since AB 32, SB 32, and AB 1279 were adopted. Overall, development of the proposed project would not obstruct implementation nor be inconsistent with the CARB Scoping Plan. Therefore, impacts would be less than significant.

#### **SCAG's Regional Transportation Plan / Sustainable Communities Strategy**

SCAG adopted the 2020-2045 RTP/SCS (Connect SoCal) in September 2020. Connect SoCal finds that land use strategies that focus on new housing and job growth in areas rich with destinations and mobility options would be consistent with a land use development pattern that supports and complements the proposed transportation network. The overarching strategy in Connect SoCal is to plan for the southern California region to grow in more compact communities in transit priority areas and priority growth areas; provide neighborhoods with efficient and plentiful public transit; establish abundant and safe opportunities to walk, bike, and pursue other forms of active transportation; and preserve more of the region's remaining natural lands and farmlands (SCAG 2020). Connect SoCal's transportation projects help more efficiently distribute population, housing, and employment growth, and forecast development is generally consistent with regional-level general plan data to promote active transportation and reduce GHG emissions. The projected regional development, when integrated with the proposed regional transportation network in Connect SoCal, would reduce per-capita GHG emissions related to vehicular travel and achieve the GHG reduction per capita targets for the SCAG region.

Connect SoCal does not require that local general plans, proposed projects, or zoning be consistent with the SCS, but provides incentives for consistency to governments and developers. As stated in Impact PH-1 in Section 8.3, the new jobs generated by the Specific Plan would provide additional employment opportunities for residents in the area. Therefore, it is anticipated that long-term and short-term (i.e., construction) jobs would be absorbed by the local and regional labor force, which would contribute to minimizing passenger VMT per capita. Moreover, VMT associated with heavy duty trucks involved in goods movement is outside the realm of the RTP/SCS, which primarily focuses on VMT associated with passenger vehicles. Under Connect SoCal, the focus remains on improving freight mobility in the region and transitioning to near-zero and zero-emissions technology. The following is the list of Connect SoCal goods-movement strategies that are applicable to the proposed project and could provide benefits on a regional and wider scale:

- **Clean Freight Corridor System/East-West Freight Corridor.** Establishing a freight corridor system to connect the San Pedro Ports and industrial cluster areas in Los Angeles and the Inland Empire.

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- **Truck Bottleneck Relief Strategy.** Working to relieve the top 57 truck bottlenecks. Examples of bottleneck relief strategies include ramp metering, extension of merging lanes, ramp and interchange improvements, capacity improvements, and auxiliary lane additions.
- **Truck Climbing Lanes.** Installing dedicated truck climbing lanes along key corridors, such as Interstate 5 (I-5), I-10, I-15, State Route 57 (SR-57), and SR-60 to enable other vehicles to move at a faster pace, thereby reducing congestion.
- **Goods Movement Environmental Strategy and Technology Advancement Plan.** Reducing environmental impacts by supporting the deployment of commercially available low-emission trucks and advancing technologies to implement a zero- and near zero-emission freight system.

The uses proposed under the project would be consistent with the overall Connect SoCal goods movement strategy, which identifies the large demand for warehouse space in the SCAG region. Therefore, overall, the proposed project would not conflict or interfere with implementation of Connect SoCal, and impacts would be less than significant.

*Level of Significance Before Mitigation:* Less than significant.

#### 5.6.5 Cumulative Impacts

Project-related GHG emissions are not confined to a particular air basin but are dispersed worldwide. Therefore, Impact 5.7-1 is not a project-specific impact, but the Specific Plan's contribution to a cumulative impact. Implementation of the proposed project would result in annual emissions that would exceed South Coast AQMD's bright-line threshold under both Option 1 and Option 2. Therefore, project-related GHG emissions and their contribution to global climate change would be cumulatively considerable, and GHG emissions impacts would be potentially significant.

#### 5.6.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, some impacts would be less than significant: 5.7-2.

Without mitigation, these impacts would be **potentially significant**:

- **Impact 5.7-1** Operation of the proposed project would generate a cumulatively considerable increase in GHG emissions that would exceed the South Coast AQMD Working Group bright-line threshold under Options 1 and 2.

#### 5.6.7 Mitigation Measures

The following mitigation measures shall apply to both Option 1 and Option 2 land use scenarios.

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### Impact 5.7-1

GHG-1 Prior to the issuance of building permits, the Project Applicant shall provide documentation to the City demonstrating that the project shall install measures listed below. Implementation of these measures shall be verified by the City prior to the issuance of final certificate of occupancy.

- All-electric energy systems.
- Enhanced window insulation (0.4 U-factor, 0.32 SHGC).
- Duct insulation (R-6).
- High efficiency HVAC (EER 15/80 percent AFUE or 8 HSPF).
- Weather-based irrigation control systems combined with drip irrigation.
- Low flow toilets, urinals, and bathroom faucets to reduce water usage.

GHG-2 Prior to issuance of an occupancy permit for a new tenant/business entity, the new tenant/business entity shall provide documentation to the City demonstrating the proposed project's buildings would consume 100 percent carbon-free electricity, when feasible and commercially available in accordance with Southern California Edison's approved programs in effect at the time the tenant/business entity seeks issuance of an occupancy permit. Measures to achieve 100 percent carbon-free electricity use for the proposed project's buildings may include, but are not limited to, plans for 100 percent renewable electricity.

GHG-3 Prior to issuance of an occupancy permit for a new tenant/business entity, the project developer/facility owner and tenant/business entity shall provide to the City of Irwindale Community Development Department a signed document (verification document) noting that the project development/facility owner has disclosed to the tenant/business entity the requirement to implement the following measures:

- A solar photovoltaic (PV) system associated with proposed project buildings. For purposes of this mitigation measure, battery storage modules are not considered buildings.
- High-efficiency lights (>50 percent of fixtures) to reduce energy usage.
- All landscape equipment (e.g., leaf blower) used for property management shall be electric powered only. The property manager/facility owner shall provide documentation (e.g., purchase, rental, and/or services agreement) to the Planning Department to verify, to the City's satisfaction, that all landscaping equipment utilized will be electric powered, as allowed.
- All on-site outdoor cargo-handling equipment (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, generators, pumps, and other on-site equipment) shall be electric or non-diesel fueled. All on-site indoor forklifts shall be powered by electricity.

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- All truck/dock bays that serve cold storage facilities within the proposed buildings shall be electrified to facilitate plug-in capabilities and support use of electric standby and/or hybrid electric transport refrigeration units.
- Prior to the issuance of a building permit, the site plan shall include the minimum number of automobile electric vehicle charging stations required by the California Code of Regulations Title 24.

This verification document shall be signed by authorized agents for the project developer/facility owner and tenant/business entities. In addition, if applicable, the tenant/business entity shall provide documentation (e.g., purchase or rental agreement) to the City of Irwindale Community Development Department to verify, to the City's satisfaction, compliance with these measures.

GHG-4 Prior to the issuance of a building permit, the Project Applicant shall provide documentation to the City demonstrating that the project buildings' electrical room is sufficiently sized to hold additional panels that may be needed to supply power for future installation of electric charging systems for electric trucks and power transport refrigeration units (TRUs). Conduit shall be installed from the electrical room to tractor-trailer parking spaces in logical locations on-site to facilitate future electric truck charging. Conduit shall be installed between the electrical room and the loading docks to facilitate the use of electric plug-in TRUs.

GHG-5 Prior to issuance of occupancy permits, the tenant/business entity shall prepare and submit a Transportation Demand Management (TDM) Program detailing strategies for reducing the use of single occupant vehicles by employees by increasing carpool/vanpool participation and transit use. Additionally, the TDM program may provide for alternative work or compressed work schedules to reduce the number of days an employee commutes to work.

GHG-6 Prior to the issuance of a building permit, the site plan shall include surface parking lots to provide parking for low-emitting, fuel-efficient, and carpool/van vehicles associated with trips to the proposed project's buildings. At minimum, the number of preferential parking spaces shall equal to the Tier 2 Nonresidential Voluntary Measures of CALGreen Section A5.106.5.1.2. In addition, the site plan shall also include automobile electric vehicle charging stations equal to the Tier 2 Nonresidential Voluntary Measures of CALGreen.

GHG-7 Prior to issuance of an occupancy permit, a new tenant/business entity shall place legible, durable, weather-proof signs at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than five minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; and 3) telephone numbers of the building facilities manager and CARB to report violations. The City shall conduct a site inspection to ensure that the signs are in place.

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### 5.6.8 Level of Significance After Mitigation

Mitigation Measure GHG-3 would reduce emissions by 1,650 MTCO<sub>2e</sub>/yr for Option 1 and 1,156 MTCO<sub>2e</sub>/yr for Option 2 from utilization of all-electric off-road equipment. However, because the number of people who may utilize alternative modes of transportation is not known, the total reductions that the services provided through Mitigation Measures GHG-1, GHG-2, GHG-4, GHG-5, GHG-6, GHG-7, and other components of GHG-3 cannot be quantified. Neither the project applicant nor the lead agency (City of Irwindale) can substantively or materially affect reductions in project mobile-source emissions beyond the regulatory requirements. Because emissions would total 21,805<sup>15</sup> MTCO<sub>2e</sub>/yr under Option 1 and 16,932<sup>16</sup> MTCO<sub>2e</sub>/yr under Option 2, both options for the proposed project would still exceed 3,000 MTCO<sub>2e</sub>/yr, and Impact 5.7-1 would remain *significant and unavoidable*.

### 5.6.9 References

- California Air Pollution Control Officers Association (CAPCOA). 2022. California Emissions Estimator Model (CalEEMod). Version 2022.1.0. Prepared by: ICF in collaboration with Sacramento Metropolitan Air Quality Management District.
- California Air Resources Board. 2008, October. Climate Change Proposed Scoping Plan: A Framework for Change.
- . 2014, May 15. First Update to the Climate Change Scoping Plan: Building on the Framework, Pursuant to AB 32, The California Global Warming Solutions Act of 2006. <http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>.
- . 2018, February. Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets. [https://www.arb.ca.gov/cc/sb375/sb375\\_target\\_update\\_final\\_staff\\_report\\_feb2018.pdf](https://www.arb.ca.gov/cc/sb375/sb375_target_update_final_staff_report_feb2018.pdf).
- . 2019, July 25. California and Major Automakers Reach Groundbreaking Framework Agreement on Clean Emission Standards. Press release # 19-23. <https://ww2.arb.ca.gov/news/california-and-major-automakers-reach-groundbreaking-framework-agreement-clean-emission>.
- . 2021, July 28. California Greenhouse Gas 2000-2019 Emissions Trends and Indicators Report. [https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000\\_2019/ghg\\_inventory\\_trends\\_00-19.pdf](https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf).
- . 2022, May 2 (accessed). 2022 Scoping Plan Update: Scenario Concepts Technical Workshop Presentations. <https://ww2.arb.ca.gov/resources/documents/2022-scoping-plan-update-scenario-concepts-technical-workshop-presentations>.

<sup>15</sup> Implementation of Mitigation Measure GHG-3 would reduce Option 1 GHG emissions by 1,350 MTCO<sub>2e</sub>/yr from 22,670 MTCO<sub>2e</sub>/yr to 21,320 MTCO<sub>2e</sub>/yr.

<sup>16</sup> Implementation of Mitigation Measure GHG-3 would reduce Option 2 GHG emissions by 943 MTCO<sub>2e</sub>/yr from 17,874 MTCO<sub>2e</sub>/yr to 16,932 MTCO<sub>2e</sub>/yr.

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- . 2023, October. Short-Lived Climate Pollutants.  
<https://ww2.arb.ca.gov/our-work/programs/slcp/about>.
- California Climate Action Team (CAT). 2006, March. Climate Action Team Report to Governor Schwarzenegger and the Legislature.
- California Climate Change Center (CCCC). 2012, July. Our Changing Climate 2012: Vulnerability and Adaptation to the Increasing Risks from Climate Change in California.
- California Energy Commission (CEC). 2006. Our Changing Climate: Assessing the Risks to California. 2006 Biennial Report. CEC-500-2006-077. California Climate Change Center.
- . 2009, May. The Future Is Now: An Update on Climate Change Science, Impacts, and Response Options for California. CEC-500-2008-0077.
- . 2018a, March. 2019 Building Energy and Efficiency Standards Frequently Asked Questions.  
[https://www.energy.ca.gov/sites/default/files/2020-03/Title\\_24\\_2019\\_Building\\_Standards\\_FAQ\\_ada.pdf](https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf).
- . 2018b, May 9. News Release: Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation. <https://www.energy.ca.gov/news/2018-05/energy-commission-adopts-standards-requiring-solar-systems-new-homes-first>.
- . 2021, May 19. Amendments to the Building Energy Efficiency Standards (2022 Energy Code) Draft Environmental Report. CEC-400-2021-077-D.
- California Natural Resources Agency (CNRA). 2014, July. Safeguarding California: Reducing Climate Risk: An Update to the 2009 California Climate Adaptation Strategy. [https://resources.ca.gov/CNRALegacyFiles/docs/climate/Final\\_Safeguarding\\_CA\\_Plan\\_July\\_31\\_2014.pdf](https://resources.ca.gov/CNRALegacyFiles/docs/climate/Final_Safeguarding_CA_Plan_July_31_2014.pdf).
- . 2019, January 16. California's Fourth Climate Change Assessment: Statewide Summary Report. [https://www.energy.ca.gov/sites/default/files/2019-11/Statewide\\_Reports-SUM-CCCA4-2018-013\\_Statewide\\_Summary\\_Report\\_ADA.pdf](https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf).
- Governor's Office of Planning and Research (OPR). 2008, June. CEQA and Climate Change: Addressing Climate Change through CEQA Review. Technical Advisory.  
<https://opr.ca.gov/docs/june08-ceqa.pdf>.
- Intergovernmental Panel on Climate Change (IPCC). 1995. Second Assessment Report: Climate Change 1995.
- . 2001. Third Assessment Report: Climate Change 2001. New York: Cambridge University Press.
- . 2007. Fourth Assessment Report: Climate Change 2007. New York: Cambridge University Press.
- . 2013. Fifth Assessment Report: Climate Change 2013. New York: Cambridge University Press.

## 5. Environmental Analysis GREENHOUSE GAS EMISSIONS

- International Energy Agency. 2008. Energy Efficiency Requirements in Building Codes, Energy Efficiency Policies for New Buildings, March. [https://iea.blob.core.windows.net/assets/3783f5e8-b14c-4c18-b04c-aab7c59d6e92/Building\\_Codes.pdf](https://iea.blob.core.windows.net/assets/3783f5e8-b14c-4c18-b04c-aab7c59d6e92/Building_Codes.pdf).
- National Highway Traffic Safety Administration. 2022, April 1. USDOT Announces New Vehicle Fuel Economy Standards for Model year 2024-2026. <https://www.nhtsa.gov/press-releases/usdot-announces-new-vehicle-fuel-economy-standards-model-year-2024-2026>.
- Office of Environmental Health Hazards Assessment (OEHHA). 2018, May. Indicators of Climate Change in California. <https://oehha.ca.gov/media/downloads/climate-change/report/2018caindicatorsreportmay2018.pdf>.
- South Coast Air Quality Management District (South Coast AQMD). 2009, November 19. GHG Meeting 14 Main Presentation. Greenhouse Gases (GHG) CEQA Significance Threshold Working Group. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-14/ghg-meeting-14-main-presentation.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-14/ghg-meeting-14-main-presentation.pdf?sfvrsn=2).
- . 2010a, September 28. Agenda for Meeting 15. Greenhouse Gases (GHG) CEQA Significance Thresholds Working Group. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-main-presentation.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-main-presentation.pdf?sfvrsn=2).
- . 2010b, September 28. Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf).
- . 2014, June. SCAQMD High Cube Warehouse Truck Trip Study White Paper Summary of Business Survey Results. <http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/business-survey-summary.pdf>.
- . 2021, June., Rule 2305: Warehouse Indirect Source Rule: Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program and Rule 316: Fees for Rule 2305. WAIRE Implementation Guidelines. <http://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/waire-implementation-guidelines.pdf?sfvrsn=12>.
- Southern California Association of Governments. 2020, September 3. Connect SoCal: The 2020–2045 Regional Transportation Plan / Sustainable Communities Strategy of the Southern California Association of Governments. <https://www.connectsocal.org/Pages/Connect-SoCal-Final-Plan.aspx>.
- Southern California Edison (SCE). 2020. 2020 Sustainability Report. <https://www.edison.com/content/dam/eix/documents/sustainability/eix-2020-sustainability-report.pdf>.
- US Environmental Protection Agency (USEPA). 2009, December. EPA: Greenhouse Gases Threaten Public Health and the Environment: Science overwhelmingly shows greenhouse gas concentrations at

## 5. Environmental Analysis

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unprecedented levels due to human activity. [https://archive.epa.gov/epapages/newsroom\\_archive/newsreleases/08d11a451131bca585257685005bf252.html](https://archive.epa.gov/epapages/newsroom_archive/newsreleases/08d11a451131bca585257685005bf252.html).

- . 2022, February 11 (accessed). Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act. <https://www.epa.gov/climate-change/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a>.

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### 5.7 HAZARDS AND HAZARDOUS MATERIALS

This section evaluates the potential impacts on human health and the environment due to exposure to hazardous materials or conditions associated with implementation of the proposed Irwindale Gateway Specific Plan. Potential project impacts and appropriate mitigation measures or standard conditions are included as necessary. The analysis in this section is based, in part, upon the following source:

- *Phase I Environmental Site Assessment, Nu-Way Live Oak Landfill, 13620 Live Oak Lane, Irwindale, Los Angeles County, CA*, Terracon Consultants, Inc., September 16, 2021.

A complete copy of this study is included in the Technical Appendices to this Draft EIR (Appendix H).

#### 5.7.1 Environmental Setting

##### 5.7.1.1 REGULATORY BACKGROUND

###### Clean Water Act

The United States Environmental Protection Agency (EPA) is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) of 1972 (33 US Code Sections 1251 to 1376) is the primary federal law that governs and authorizes water quality control activities by the EPA and the states.

Under federal law, the EPA has published water quality regulations under Volume 40 of the Code of Federal Regulations. Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question and (2) criteria that protect the designated uses. Section 304(a) requires the EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use.

When water quality does not meet CWA standards and compromises designated beneficial uses of a receiving water body, Section 303(d) of the CWA requires that the water body be identified and listed as “impaired.” Once a water body has been designated as impaired, a total maximum daily load (TMDL) must be developed for the impairing pollutant(s). A TMDL is an estimate of the total load of pollutants from point, nonpoint, and natural sources that a water body may receive without exceeding applicable water quality standards, with a factor of safety included. Once established, the TMDL allocates the loads among current and future pollutant sources to the water body.

###### National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States, including discharges from municipal separate storm sewer systems. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations

## 5. Environmental Analysis

### HAZARDS AND HAZARDOUS MATERIALS

and/or mass emissions of pollutants in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

Under the NPDES program, all facilities that discharge pollutants into waters of the United States are required to obtain an NPDES permit. Requirements for stormwater discharges are also regulated under this program. In California, the NPDES permit program is administered by State Water Resources Control Board (SWRCB) through the nine Regional Water Quality Control Boards (RWQCB). The specific plan area lies within the jurisdiction of the Los Angeles RWQCB (Region 4) and therefore is also subject to the requirements set forth in the Los Angeles County MS4 permit.

#### **Resource Conservation and Recovery Act**

The Resource Conservation and Recovery Act (RCRA) of 1976 (42 US Code sec. 6901 et seq.) is the principal federal law regulating waste generation, management, and transportation. Hazardous waste management includes storage creating, storing, or disposal of hazardous waste. RCRA gave the EPA the authority to control hazardous waste from “cradle to grave”—from generation to transportation, treatment, storage, and disposal—at active and future facilities. It does not address abandoned or historical sites. RCRA also set up a framework for managing nonhazardous wastes. Later amendments required phasing out land disposal of hazardous waste and added underground tanks storing petroleum and other hazardous substances.

#### **Comprehensive Environmental Response, Compensation and Liability Act**

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 protects water, air, and soil resources from the risks created by past chemical disposal practices. This law is also called the Superfund Act and regulates sites on the National Priority List which are called Superfund sites. The act was intended to encompass the prevention of and response to uncontrolled hazardous substances releases. It provides mechanisms for reacting to emergencies and chronic hazardous material releases. In addition to procedures to prevent and remedy problems, it established a system for compensating appropriate individuals and assigning appropriate liability. It is designed to plan for and respond to failure in other regulatory programs and remedy problems resulting from action taken before the era of comprehensive regulatory protection.

#### **Emergency Planning and Community Right-to-Know Act**

Title III of the Superfund Amendments and Reauthorization Act authorized the Emergency Planning and Community Right-to-Know Act (EPCRA) (42 US Code sec. 11001 et seq.) to inform communities and citizens of chemical hazards in their areas. It requires businesses to report the locations and quantities of chemicals stored on-site to state and local agencies; releases to the environment of more than 600 designated toxic chemicals; off-site transfers of waste; and pollution prevention measures and activities and to participate in chemical recycling. EPA maintains and publishes an online, publicly available, national database of toxic chemical releases and other waste management activities by specific industry groups and federal facilities—the Toxics Release Inventory.

## 5. Environmental Analysis HAZARDS AND HAZARDOUS MATERIALS

To implement EPCRA, each state appoints a state emergency response commission to coordinate planning and implementation activities associated with hazardous materials. The commissions divide their states into emergency planning districts and name each district's local emergency planning committee. The federal EPCRA program is implemented and administered in California by the Governor's Office of Emergency Services, a state commission, 6 district committees, and 81 Certified Unified Program agencies (CUPA). The Office of Emergency Services coordinates and provides staff support for the commission and district committees.

### **Toxic Substances Control Act**

The Toxic Substances Control Act (TSCA) of 1976 gives the EPA the authority to require reporting, record-keeping, testing requirements, and restrictions related to chemical substances and/or mixtures. TSCA addresses the production, importation, use, and disposal of specific chemicals, including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint. Title IV of the TSCA directs the EPA to regulate lead-based paint hazards.

TSCA Sections 402 and 404 require those engaged in lead abatements, risk assessments, and inspections in homes or child-occupied facilities before 1978 (such as in daycare centers and kindergartens) to be trained and certified in specific practices to ensure accuracy and safety. TSCA Section 403, Residential Hazard Standards for Lead in Paint, Dust, and Soil, sets standards for dangerous lead levels in paint, household dust, and residential soil.

### **Hazardous Materials Transportation Act**

The United States Department of Transportation regulates hazardous materials transportation to reduce risks to life and property from hazards associated with the transport of hazardous materials under Title 49 of the Code of Federal Regulations, which reflects laws passed by Congress as of January 2, 2006, last amended April 15, 2022. State agencies responsible for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation. These agencies also govern permitting for hazardous materials transportation.

### **State**

#### *California Health and Safety Code and Code of Regulations*

California Health and Safety Code Chapter 6.95 and California Code of Regulations (CCR), Title 19, Section 2729 set out the minimum requirements for business emergency plans and chemical inventory reporting. A business that uses hazardous materials or a mixture containing hazardous materials must establish and implement a business plan if the hazardous material is handled in certain quantities. These regulations require businesses to provide emergency response plans and procedures, training program information, and a hazardous material chemical inventory disclosing hazardous materials stored, used, or handled on-site.

#### *22 CCR Division 4.5*

Title 22, Division 4.5, of the CCR sets forth the requirements for hazardous waste generators; transporters; and owners or operators of treatment, storage, or disposal facilities. These regulations include the requirements

## 5. Environmental Analysis

### HAZARDS AND HAZARDOUS MATERIALS

for packaging, storage, labeling, reporting, and general management of hazardous waste prior to shipment. In addition, the regulations identify standards applicable to transporters of hazardous waste. These regulations specify the requirements for transporting loads of hazardous waste, including manifesting, vehicle registration, and accidental emergency discharges during transportation.

#### *Asbestos-Containing Materials Regulations*

In conjunction with the EPA and California Occupational Safety and Health Administration (Cal/OSHA), state-level agencies regulate removal, abatement, and transport procedures for asbestos-containing materials. These regulations prohibit asbestos releases from industrial, demolition or construction activities, and medical evaluation and monitoring are required for employees performing activities that could expose them to asbestos. The regulations include warnings and practices needed to reduce the risk of asbestos emissions and exposure. For example, 8 CCR Section 1529 provides for exposure limits, exposure monitoring, respiratory protection, and good working practices for workers exposed to asbestos. Finally, federal, state, and local agencies must be notified prior to the onset of demolition or construction activities with the potential to release asbestos.

#### *Polychlorinated Biphenyls Regulations*

The EPA prohibited the use of PCBs in most of the new electrical equipment starting in 1979 and initiated a phase-out for much of the existing PCB-containing equipment. The provisions of the TSCA regulate the inclusion of PCBs in electrical equipment and the handling of PCBs. Relevant regulations include labeling and periodic inspection requirements for certain types of PCB-containing equipment and outline safety procedures for their disposal. The state likewise considers PCB-laden electrical equipment and materials contaminated above a certain threshold as hazardous waste and regulates them; accordingly, these regulations require that such materials be treated, transported, and disposed of as hazardous waste. At lower concentrations for nonliquids, regional water quality control boards may exercise discretion over classifying such wastes.

#### *Lead Regulations*

Cal/OSHA's "Lead in Construction Standard" is in 8 CCR Section 1532.1. This section applies to all construction work where an employee may be exposed to lead. The regulations address these areas: permissible exposure limits; exposure assessment; compliance methods; respiratory protection; protective clothing and equipment; housekeeping; medical surveillance; medical removal protection; employee information, training, and certification; signage; record keeping; monitoring; and agency notification.

#### *Hazardous Materials Disclosure Programs*

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) administered by the State of California consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities for environmental and emergency management programs, which include Hazardous Materials Release Response Plans and Inventories (business plans), the California Accidental Release Prevention Program, and the Underground Storage Tank (UST) Program. The Unified Program is implemented at the local government level by CUPAs. The Los Angeles County Fire Department (LACFD) is the designated CUPA for hazardous materials in Los Angeles County. Under the

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Unified Program, the LACFD's Health Hazardous Materials Division consolidates, coordinates, and makes consistent the administrative requirements, permits, inspection, and enforcement activities associated with several regulatory programs.

### *Underground Storage Tank Program*

The purpose of the UST Program is to protect people and the environment from releases of petroleum and other hazardous substances from tanks. The statutes govern the UST Program in the Solid Waste Disposal Act (1965). Because of the localized nature of USTs, the EPA shifts enforcement and oversight authority to local governments. California laws and regulations authorize the State Water Board to implement the UST program. The State Water Board then delegates the field implementation to CUPAs.

There are four program elements related to USTs:

- 1) Leak Prevention includes requirements for tank installation, construction, testing, leak detection, spill containment, and overflow protection. The state issues CUPAs as the overseer for the Leak Prevention Program. Within the City of Irwindale, the CUPA responsible for implementing this program element is the Los Angeles County CUPA.
- 2) Cleanup of leaking tanks includes groundwater and soil testing followed by remediation. The Los Angeles County CUPA oversees the cleanup of "soils-only" contamination cases. The local CUPA refers sites with groundwater contamination to the Los Angeles Regional Water Quality Control District.
- 3) Enforcement of existing regulations is delegated by the State Water Resources Control Board to local agencies enforcing UST requirements (LA County CUPAs) for everything except cleanup of groundwater contamination.
- 4) Tank Tester Licensing tests the integrity of tanks and is required by law and administered by the Office of Tank Tester Licensing within the State Water Board.

### *California Fire Code*

The California Fire Code is in 24 CCR Part 9. The Code is updated every three years and includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, fire hydrant locations and distribution, and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildlife hazard areas.

The California Department of Forestry and Fire Protection (CAL FIRE) is dedicated to the fire protection and stewardship of over 31 million acres of California's wildlands. The Office of the State Fire Marshal supports CAL FIRE's mission to protect life and property through fire prevention engineering programs, law and code enforcement, and education. The State Fire Marshal provides for fire prevention by enforcing fire-related laws in state-owned or -operated buildings; investigating arson fires in California; licensing those who inspect and service fire protection systems; approving fireworks for use in California; regulating the use of chemical flame retardants; evaluating building materials against fire safety standards; regulating hazardous liquid pipelines, and tracking incident statistics for local and state government emergency response agencies. The California Fire

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Plan is the state's road map for reducing wildfire risk through planning and prevention to reduce firefighting costs and property losses, increase firefighter safety, and contribute to ecosystem health. The California Fire Plan is a cooperative effort between the State Board of Forestry and Fire Protection and CAL FIRE.

LACFD provides emergency management and fire protection for the City of Irwindale. The LACFD is a full-service fire department that provides fire suppression, urban search and rescue, paramedic ambulance service, fire prevention inspections/permits, public fire education programs, emergency preparedness planning, fire cause and origin investigation, fire patrols, and other services based on community needs. LACFD calls for service pertaining to the City of Irwindale are dispatched from Station No. 29 in the City of Baldwin Park at 14334 Los Angeles Street, and Station No. 48 in the City of Irwindale at 15546 Arrow Highway. Station No. 29 is the closest fire station to the project site, approximately 1.9 roadway miles southeast of the project site. Also see Section 5.12, *Public Services*. In addition, the LACFD is also responsible for disaster preparedness and other services, such as building plan review, fire prevention, and fire hydrant testing.

#### *SWRCB Construction General Permit*

The SWRCB adopted the revised Statewide Construction General Permit (CGP) on September 8, 2022 (Order WQ 2022-0057-DWQ), which will become effective on September 1, 2023. Under the terms of the permit, applicants must file Permit Registration Documents (PRD) with the SWRCB prior to the start of construction. The PRDs include a Notice of Intent, risk assessment, site map, Stormwater Pollution Prevention Plan (SWPPP), annual fee, and a signed certification statement. The PRDs are submitted electronically to the SWRCB via the Stormwater Multiple Application and Report Tracking System (SMARTS) website.

Applicants must also demonstrate conformance with applicable best management practices (BMP) and prepare a SWPPP containing a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project site. The SWPPP must list BMPs that would be implemented to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources. Additionally, the SWPPP must contain a weekly visual monitoring program and BMP inspections prior to, during, and after qualifying precipitation events. Water quality monitoring is also required with a schedule based on the risk level of the site.

### **Regional**

#### *South Coast Air Quality Management District*

South Coast Air Quality Management District's Rule 1403 governs the demolition of buildings containing asbestos materials. Rule 1403 specifies work practices to minimize asbestos emissions during building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing material (ACM). The requirements for demolition and renovation activities include asbestos surveying, notification, ACM removal procedures, and time schedules, ACM handling and cleanup procedures, and storage and disposal requirements for asbestos-containing waste materials.

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### *Los Angeles County All-Hazards Mitigation Plan*

The Disaster Mitigation Act of 2000, Public Law 106-390 (Section 322(a–d)) requires that local governments, as a condition of receiving federal disaster mitigation funds, adopt a mitigation plan that describes the process for identifying hazards, vulnerabilities, and risks; identifies and prioritizes mitigation actions; encourages the development of local mitigation; and provides technical support for those efforts. In response to this and the requirements of the California Office of Emergency Services, the County prepared the Los Angeles County All-Hazards Mitigation Plan to reduce and/or eliminate the effects of hazards through well-organized public education and awareness efforts, preparedness, and mitigation.

### *Los Angeles County Operational Area Emergency Response Plan*

The Los Angeles County Operational Area Emergency Response Plan establishes the County’s coordinated emergency management system, which includes prevention, protection, response, recovery, and mitigation within the operational area. When a county proclaims a local emergency pursuant to Section 8630 of the Government Code, based upon conditions that include both incorporated and unincorporated territory of the county, it is not necessary for the cities to also proclaim the existence of a local emergency independently. Further, cities within a county are bound by county rules and regulations adopted by the county under Section 8634 of the Government Code during a county proclaimed local emergency when the local emergency includes both incorporated and unincorporated territory of the county, even if the cities do not independently proclaim the existence of a local emergency. The plan describes:

- Emergency organization.
- Authorities and responsibilities of the emergency organization.
- Mutual aid process during emergencies to ensure effective coordination of needed resources. (LA County 2012).

## **Local**

### *Irwindale Municipal Code*

The City of Irwindale Municipal Code addresses hazards and hazardous materials in the following chapters:

- Chapter 8.20: Solid Waste Collection and Salvage of Recyclable Materials
- Chapter 8.28: Storm Water and Urban Runoff Pollution
- Chapter 17.60, Section 17.60.065: Water Quality
- Chapter 17.60, Section 17.60.125: Hazardous Materials
- Chapter 17.60, Section 17.030.27: Use, Sale or Storage of Toxic or Hazardous Materials

### *Airports*

Airport authorities and other agencies regulate aircraft activity. The State Aeronautics Act of the California Public Utilities Code establishes statewide requirements for airport land use compatibility planning. It requires nearly every county to create an Airport Land Use Commission (ALUC) or an alternative. Los Angeles County

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### HAZARDS AND HAZARDOUS MATERIALS

opted for an ALUC. There are 15 airports under LA County ALUC's jurisdiction. Five are County owned; other public entities own nine; and one is privately owned. The airport land use compatibility plan is primarily concerned with land uses near Los Angeles International Airport, Long Beach Municipal Airport, Bob Hope Airport, and Torrance Airport. The project site is not in an airport influence area or protection zone.

#### 5.7.1.2 EXISTING CONDITIONS

##### Current Use of the Project Site

Currently, a majority of the project site is undergoing an active reclamation. As depicted in Figure 3-3, *Aerial Photograph*, with the exception of the northern portion and SCE easement of the project site, the entire project site is disturbed by the former land uses and reclamation operation. Vehicles enter and exit the site at a gated driveway in the northern portion of the project site at Live Oak Lane. A temporary office trailer is staged near the Live Oak Lane entrance. Temporary movable structures (portable toilets, sunshades, etc.) are installed throughout the project site. Employee parking areas will move based on operational locations but are generally near the Live Oak Lane entrance. There are two vacant, one-story metal buildings on the north end of the project site. An existing retention basin covers the SCE easement on the western portion of the project site. Pole-mounted overhead power lines also run along the northern and southern project site boundary. Ornamental trees grow along the project site's frontage with Live Oak Avenue and the eastern portion of Live Oak Lane.

##### Historical Uses of the Project Site

Based on a review of historical information, the project site encompasses a former sand and gravel quarry, the NuWay Live Oak Inert Landfill (NuWay Landfill) and a former street-cleaning business. As stated in Section 3.3.1.1 the project site was developed with a quarry that was in operation from 1957 to about 1973. The project site was used as an inert landfill from 1990 to about 2005, and a street-cleaning business was established on the northern portion of the project site in 1983. The northern portion of the project site had two underground storage tanks removed in 1990, and the CUPA granted site closure for leaking underground storage tanks in 1991.

##### Phase I Environmental Site Assessment Findings

The Phase I Environmental Site Assessment (ESA) prepared by Terracon used the ASTM Standard E 1527-13, which defines a recognized environmental condition (REC) as

. . . the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.<sup>1</sup>

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<sup>1</sup> ASTM Standard E 1527-13 has been superseded by ASTM E 1527 21. ASTM E 1527 21 defines a recognized environmental condition as: (1) the presence of hazardous substances or petroleum due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products due to a likely release to the environment; or (3) the presence of hazardous

## 5. Environmental Analysis HAZARDS AND HAZARDOUS MATERIALS

The Phase I ESA prepared by Terracon for the project site found five recognized environmental conditions. Landfill operations at the site were identified as a REC, including volatile organic compounds (VOC) and methane in soil gas and VOCs in groundwater. The Phase I ESA also identified vehicle maintenance operations on Lot 35, drums and containers of used oil and hydraulic fluid, stained soil in the construction staging yard, and All-American Asphalt operations on the project site as RECs.

A historical REC is defined by the ASTM E 1527-13 Standard as:

. . . a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

One historical REC was identified for the project site. On November 12, 1990, two 10,000-gallon capacity USTs separately containing diesel and unleaded gasoline that had leaked were removed from the project site under the oversight of LACFD. The area was cleaned up under the oversight of the Los Angeles County Department of Public Works and the Los Angeles Regional Water Quality Control Board. LA County Public Works found that the site met closure criteria and issued a closure letter on August 28, 1991.

### *Regulatory Agency Environmental Database Listings*

The Phase I ESA included a review of the computer-generated environmental records search database provided by Environmental Data Resources (EDR). The project site was listed on the following databases: Solid Waste Facilities/Landfills (SWF/LF), Waste Management Units Database System (WMUDS/SWAT), Emissions Inventory Data (EMI), Facility Index System (FINDS), Enforcement and Compliance History Online (ECHO), California Integrated Water Quality System Project (CIWQS), California Environmental Reporting System (CERS), Waste Discharge System (WDS), Well Investigation Program Case List (WIP), Financial Insurance Information Listing, Resource Conservation and Recovery Act Non Generators/No Longer Regulated (RCRA NonGen/NLR), Hazardous Waste Tracking System (HWTS), Statewide Environmental Evaluation and Planning System Underground Storage Tank (SWEEPS UST), Active UST Facilities (UST), Leaking Underground Storage Tank Database (LUST), Hazardous Substance Storage Container Database (HIST UST), Hazardous Waste and Substance Site List (Hist Cortese), and Los Angeles County Department of Public Works Industrial Waste and Underground Storage Tank Sites (Los Angeles Co. HMS). A listing was also identified for HAZNET due to the lawful disposal of hazardous materials.

### *Asbestos-Containing Materials and Lead-Based Paint*

State and federal agencies regulate removal, abatement, and transport procedures for ACM. These regulations prohibit releases of asbestos from industrial, demolition, or construction activities not permitted, and medical evaluation and monitoring are required for employees performing actions that could expose them to asbestos. Additionally, the rules include warnings and practices that must be followed to reduce the risk of asbestos

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substances or petroleum products under conditions that pose a material threat of a future release to the environment. For purposes of this discussion, the updated definition of an REC does not impact the discussion in this chapter.

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### HAZARDS AND HAZARDOUS MATERIALS

emissions and exposure. Finally, federal, state, and local agencies must be notified before the onset of demolition or construction activities with the potential to release asbestos.

ACMs were commonly used in a wide variety of building products before 1980, such as roofing shingles, composite siding, linoleum flooring, acoustic ceiling tiles, furnace, and water heater exhaust piping and insulation, glues and mastics, stucco, joint compounds, and composite wallboards. ACMs can be divided into friable materials (easily crumbled or reduced to powder) and nonfriable. Friable ACMs are regulated as hazardous materials due to respiratory exposure's elevated long-term risk of developing lung cancer. They must be properly removed before the renovation or demolition of any structure containing them.

Lead-based paints were commonly used until 1978, when they were phased out. The previous structures on the project site were all constructed on or after 1983, so lead-based paint and ACM are not expected to be found in existing structures.

#### *Polychlorinated Biphenyls*

Before the 1970s, PCBs were used in fluids for insulation and cooling. PCBs are considered toxic environmental contaminants, and the EPA banned the manufacture of PCBs in 1979. PCBs have been demonstrated to cause cancer and various adverse effects on the immune system, reproductive system, nervous system, and endocrine system. According to the Phase I ESA, no PCBs associated with equipment were found to occur on the project site (Terracon 2021).

#### *Radon*

The Indoor Radon Abatement Act of 1988 directs the EPA to identify and lists areas of the United States with the potential for elevated indoor radon levels. Radon is a colorless, odorless, tasteless, radioactive gas produced as a natural decay product of uranium. Because of its radioactivity, studies have shown a link between elevated concentrations of radon and lung cancer. Persons living in a building with high radon concentrations may have an increased risk of contracting lung cancer. The Phase I ESA indicates that the site is in Zone 2, which is below the radon action level of the California Department of Health Services.

### 5.7.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- H-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- H-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.
- H-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school.

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- H-4 Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.
- H-5 For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would result in a safety hazard or excessive noise for people residing or working in the project area.
- H-6 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- H-7 Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

### 5.7.3 Applicable Specific Plan Development Standards and Design Guidelines

#### 5.7.3.1 DEVELOPMENT STANDARDS

The Specific Plan does not include specific development standards for hazardous wastes in Chapter 7, Development Standards, but Chapter 8, Utility Infrastructure, describes the solid waste disposal, including hazardous waste. Section 8.5, Solid Waste Disposal, notes that Athens Services would provide businesses with a full spectrum of solid waste disposal that includes routine trash removal, recyclable collection, organic waste collection, bulky item removal, hazardous waste removal, and a restaurant food waste composting pilot program. The development would provide trash enclosures to accommodate the size, type, and number of bins required for the uses on-site.

#### 5.7.3.2 DESIGN GUIDELINES

There are no Specific Plan design guidelines pertaining to hazards and hazardous materials.

### 5.7.4 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Notice of Preparation disclosed potentially significant impacts. Unless otherwise noted, the impact analysis applies to both Option 1 and Option 2 development scenarios. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.7-1: Project construction and/or operations would involve the transport, use, and/or disposal of hazardous materials. [Thresholds H-1, H-2, and H-3]**

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Following is a discussion of the proposed project's potential to create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials.

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#### Construction

The construction of the proposed project would involve grading, excavation, and new buildings. Potentially hazardous materials used during construction include paints, sealants, solvents, adhesives, cleaners, oils, compressed gases, and diesel fuel. Temporary bulk aboveground storage tanks (e.g., 55-gallon drums) may also be used for fueling and maintenance purposes. There is potential for hazardous materials to spill or to create hazardous conditions. However, these activities would also be short-term or one-time in nature.

To prevent spills or hazardous conditions, construction activity would comply with the requirements of existing local, state, and federal laws, such as those listed under Section 5.7.1.1, *Regulatory Background*. Compliance with existing regulations would ensure that construction workers and the general public are not exposed to impacts from releases and unsafe exposure related to hazardous materials during construction activities. Cal/OSHA is the primary agency responsible for worker safety in the handling and using of chemicals in the workplace. The project developer must monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR Sections 337–340). Regulations specify requirements for employee training for recognition and proper handling of hazardous materials, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings. Any contaminated waste encountered would be required to be collected and disposed of at an appropriately licensed disposal or treatment facility. Furthermore, strict adherence to all emergency response requirements set forth by LACFD would be required throughout project construction.

The Specific Plan would require compliance with the CGP (Order WQ 2022-0057-DWQ), which requires the preparation and implementation of a SWPPP. A SWPPP requires the incorporation of BMPs to control sediment, erosion, and hazardous materials contamination of runoff during construction and prevent contaminants from reaching receiving water bodies. The SWRCB mandates that projects that disturb one or more acres of land must obtain coverage under the Statewide CGP. The CGP also requires that prior to the start of construction activities, the project developer must file PRDs with the SWRCB, which include a Notice of Intent risk assessment, site map, annual fee, signed certification statement, SWPPP, and post-construction water balance calculations. The construction contractor is always required to maintain a copy of the SWPPP at the site and implement all construction BMPs identified in the SWPPP during construction activities. Prior to the issuance of a grading permit, the project developer is required to provide proof of filing the PRDs with the SWRCB.

Additionally, any project-related hazardous materials and hazardous wastes would be transported to and/or from the project site in compliance with any applicable state and federal requirements, including the U.S. Department of Transportation regulations in the Code of Federal Regulations (Title 49, Hazardous Materials Transportation Act), California Department of Transportation standards, and Cal/OSHA standards.

Any project-related hazardous waste generation, transportation, treatment, storage, and disposal would be conducted in compliance with Subtitle C of RCRA (Code of Federal Regulations, Title 40, Part 263), including the management of nonhazardous solid wastes. The proposed project would be designed and constructed by the specifications and regulations of the State and LACFD, which is the designated CUPA and implements state and federal regulations for the following programs: (1) Hazardous Waste Generator, (2) Hazardous

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Materials Release Response Plans and Inventory Program, (3) California Accidental Release Prevention Program, (4) Aboveground Storage Tank Program, and (5) Underground Storage Tank Program.

Additionally, the use, transport, and disposal of construction-related hazardous materials would be required to conform to existing laws and regulations, ensuring that all potentially hazardous materials are used and handled appropriately and would minimize the potential for accidental releases, or unsafe exposure.

Therefore, substantial hazards to the public or the environment arising from the routine transport, use, or disposal of hazardous materials, or reasonably foreseeable upset and accident conditions during project construction would not occur, and impacts would be **less than significant**.

### Operation

The proposed project includes industrial land uses. Option 2 includes the BESS which would contain lithium-ion batteries housed in purpose-designed containers on 16 acres of the project site. At the end of their lifespan, these batteries can be disposed of as a universal waste if the cell casings are intact. However, if the batteries are damaged, they are most likely to be classified as hazardous waste due to their ignitability and reactivity characteristics. The facility operator would be required to participate in the CUPA hazardous business plan program, and applicable hazardous waste generator requirements for storage and disposal of hazardous waste. However, batteries from the proposed operation would not have to be stored and disposed in this manner provided they are not physically damaged when they reach the end of their lifespan.

No toxic air contaminants (“TAC”) are emitted during normal operation of a BESS. TAC emissions from a thermal runaway event (a fire in a container due to battery malfunction, elevated temperatures, and battery combustion) were determined to be highly unlikely. As detailed in Section 5.2, *Air Quality*, project-related health risks were determined for nearby sensitive receptors in the case of a battery cell malfunction and thermal runaway event. A screening level health risk evaluation was conducted using South Coast AQMD’s Facility Prioritization Procedure (South Coast AQMD 2020). The results of the BESS health risk screening are provided in Table 5.2-19, *BESS Health Risk Screening Results*. The total score for a thermal runaway event was calculated as 0.002, which would make the BESS a low priority or low risk facility ( $PS \leq 1$ ). Therefore, the BESS would not expose sensitive receptors to substantial pollutant concentrations, and impacts are considered less than significant.

BESS facilities must meet the requirements of the National Fire Protection Association (NFPA), which issues standards for addressing energy storage systems (NFPA 2022). The proposed BESS containers would be equipped with fire monitoring systems, controls, and cooling units to keep the batteries at optimal operating temperatures. The fire monitoring systems consist of smoke and heat sensors, gas detectors, alarms, remote monitoring, and an NFPA69-compliant explosion prevention system. Each fire protection system would have a signal that would trigger core power-down during fire, electrical fire, overheating, or other issues. The entire project power-down would occur automatically during electrical fault conditions (e.g., high-voltage, high-frequency, ground fault). In addition, the proposed BESS would be equipped with breakers that could be opened manually to power down different equipment or the proposed project.

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LACFD is experienced with BESS projects. As of June 2023, 14 BESS plants are in operation in LA County (356 MW) and 8 are in late-stage development or construction (641 MW). LACFD is very familiar with BESS technology, and will be responsible for plan checking and approvals.

The following installation and operations requirements would help ensure fire safety related to the BESS:

- **Fire Hydrants:** Per LA County Fire Dept regulations, the project design is expected to include internal hydrants located to ensure a maximum hose pull of 150 feet. This is a shorter distance than is typical for a warehouse building and allows for a faster response time for defensive firefighting.
- **Training:** The site will include one or two days of fire department training with a qualified fire and battery safety engineer.
- **Hazard Mitigation Plan / Emergency Response Plan:** The site will include a formal hazard mitigation analysis and site-level emergency response plan generated by a qualified fire safety engineer for the specific design of the project. This will be reviewed and approved by LACFD during the building permit process.
- **Fire Suppression Systems:** Current standards dictate a dry standpipe connection to the BESS containers. A standpipe is a port in the BESS container that allows a fire hose to be connected to the container. Water has proven to be the best option in fighting lithium-ion battery fires. With the provision of a dry standpipe, the local fire department can choose to aggressively contain the fire by flooding the system with water.
- **Installation:** Each module is tested at the manufacturer's facility and inspected for damage at the project site. Once installed and in operational mode, the battery management system (BMS) is calibrated for the specific use-case. The BMS protects the battery cells, modules, and racks from current, voltage and temperature design limit deviations by performing an emergency shutdown.

The operation of the proposed land uses under the proposed project would involve the routine use, storage, transport, and disposal of primarily industrial hazardous materials that would be governed by existing regulations, including the RCRA, which provides “cradle to grave” regulation of hazardous wastes; Hazardous Materials Transportation Act, which governs hazardous materials transportation on U.S. roadways; the International Fire Code, which creates procedures and mechanisms to ensure the safe handling and storage of hazardous materials; CCR Title 22, which regulates the generation, transportation, treatment, storage and disposal of hazardous waste; and CCR Title 27, which governs the treatment, storage and disposal of solid wastes.

LACFD is the CUPA for the City and is responsible for enforcing Hazardous Materials Release Response Plans and Inventory (Chapter 6.95 of the Health and Safety Code). The CUPA is required to regulate hazardous materials business plans and chemical inventory, hazardous waste and tiered permitting, underground storage tanks, and risk management plans. The hazardous materials business plans are required to contain basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of on development sites. The plan also contains an emergency response plan that describes the procedures for mitigating a hazardous release, procedures, and equipment for minimizing the potential damage of a hazardous materials release, and provisions for immediate notification of the CUPA and other emergency response

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personnel, such as the local fire agency having jurisdiction. Implementation of the emergency response plan facilitates rapid response in the event of an accidental spill or release such as oil spills from oil-filled transformers, electrical equipment, and backup generator fuel tanks thereby reducing potential adverse impacts. Furthermore, the CUPA must conduct ongoing routine inspections to ensure compliance with existing laws and regulations, identify safety hazards that could cause or contribute to an accidental spill or release, and suggest preventive measures to minimize the risk of a spill or release of hazardous substances. The CUPA also enforces the UST program which includes leak prevention requirements for spill containment, overfill protection, and the cleanup of leaking tanks. Cal/OSHA would also regulate worker safety in the handling and using of chemicals in the workplace. Furthermore, strict adherence to all emergency response requirements set forth by LACFD would be required throughout project operations.

Compliance with applicable laws and regulations governing the use, storage, transport, release, and disposal of hazardous materials would ensure that all potentially hazardous materials associated with future development proposed by the project are used and handled appropriately and would minimize the potential for safety impacts. Compliance with these laws and regulations is enforced through the City's building plan check process and any discretionary entitlement review in addition to local enforcement agencies such as the local CUPA.

There are no schools within one-quarter mile of the project site.

Based on the preceding, hazards to the public or the environment arising from the routine transport, use or disposal of hazardous materials, or reasonably foreseeable upset and accident conditions during project operation would not occur, and impacts would be less than significant.

***Level of Significance Before Mitigation:*** Less than significant.

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**Impact 5.7-2: Although the project site is on a list of hazardous materials sites, the site received regulatory closure in 1991 and would not create a hazard to the public or the environment. [Threshold H-4]**

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The Phase I ESA prepared in 2021 identified five RECs for the project site. Landfill operations at the site were identified as a REC including VOCs and methane in soil gas and VOCs in groundwater. The Phase I ESA also identified vehicle maintenance operations on Lot 35, drums and containers of used oil and hydraulic fluid, stained soil in the construction staging yard, and All-American Asphalt operations on the project site as RECs. One historical REC was identified—on November 12, 1990, two 10,000-gallon capacity USTs separately containing diesel and unleaded gasoline that had leaked were removed from the project site under the oversight of LACFD. The area was cleaned up under the oversight of the Los Angeles County Department of Public Works and the Los Angeles Regional Water Quality Control Board. LA County Public Works found that the site met closure criteria and issued a closure letter on August 28, 1991.

California Government Code Section 65962.5 requires Cal/EPA's Department of Toxic Substances Control to compile a list (updated at least annually) of the following sites and submit the list to the Secretary for Environmental Protection:

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- (a) (1) All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.
- (2) All land designated as hazardous waste property or border zone property pursuant to former Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code.
- (3) All information received by the Department of Toxic Substances Control pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land.
- (4) All sites listed pursuant to Section 25356 of the Health and Safety Code.

Government Code Section 65962.5 also requires that:

- (b) The State Department of Health Services shall compile and update as appropriate, but at least annually, and shall submit to the Secretary for Environmental Protection a list of all public drinking water wells that contain detectable levels of organic contaminants and that are subject to water analysis pursuant to Section 116395 of the Health and Safety Code.
- (c) The State Water Resources Control Board shall compile and update as appropriate, but at least annually, and shall submit to the Secretary for Environmental Protection, a list of all the following:
  - (1) All underground storage tanks for which an unauthorized release report is filed under Section 25295 of the Health and Safety Code.
  - (2) All solid waste disposal facilities have a migration of hazardous waste and for which a California regional water quality control board has notified the Department of Toxic Substances Control pursuant to subdivision (e) of Section 13273 of the Water Code.
  - (3) All cease-and-desist orders issued after January 1, 1986, under Section 13301 of the Water Code, and all cleanup or abatement orders issued after January 1, 1986, under Section 13304 of the Water Code, that concern the discharge of wastes that are hazardous materials.
  - (d) The local enforcement agency, as designated under Section 18051 of Title 14 of the California Code of Regulations, shall compile as appropriate, but at least annually, and shall submit to the Department of Resources Recycling and Recovery, a list of all solid waste disposal facilities from which there is a known migration of hazardous waste. The Department of Resources Recycling and Recovery shall compile the local lists into a statewide list, which shall be submitted to the Secretary for Environmental Protection and shall be available to any person who requests the information.

Five environmental databases that list multiple cleanup programs were searched for hazardous materials information for the project site.

- GeoTracker: State Water Resources Control Board (SWRCB 2023)
- EnviroStor: Department of Toxic Substances Control (DTSC 2023)

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- EJScreen: US Environmental Protection Agency (USEPA 2023a)
- EnviroMapper: US Environmental Protection Agency (USEPA 2023b)
- Solid Waste Information System: California Department of Resources Recovery and Recycling (CalRecycle 2023)

Although the site is listed on the Cortese Hazardous Waste and Substance Site List, the site received regulatory closure in 1991 (DTSC 2023) and remaining concerns are being mitigated through the approved operations plan. Therefore, even though the project site is included on a list compiled pursuant to Government Code Section 65962.5, it would not create a hazard to the public or the environment, and impacts would be less than significant.

*Level of Significance Before Mitigation:* Less than significant.

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**Impact 5.7-3: The project site is not located in the vicinity of an airport or within the jurisdiction of an airport land use plan. [Threshold H-5]**

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The nearest airport to the project site is the San Gabriel Valley Airport, approximately 3.3 miles southwest of the project site. Brackett Field Airport is approximately 10.6 miles east of the project site. The project site is not within an airport land use plan and not within two miles of a public airport or public use airport. There would be no impact on safety hazards or excessive noise for people residing or working in the project area.

*Level of Significance Before Mitigation:* No impact.

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**Impact 5.7-4: Project development would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan [Threshold H-6].**

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The City of Irwindale focuses on providing education, training, and guidance to minimize impacts and bring the city back to normalcy effectively and as soon as possible after a major emergency or disaster. The City works directly with LACFD, Irwindale Police Department, and the California Governor's Office of Emergency Services to identify disaster risks and hazards and develop strategies to prepare, respond, and recover from devastating events. Emergency management staff are active in advocating the importance of whole community preparedness through presentations, events, and outreach efforts. Los Angeles County adopted an "All-Hazards Mitigation Plan" in May 2020. The plan aims to identify the county's top hazards; assess the risks to the residents, buildings and critical facilities; and develop mitigation strategies to reduce the risk of exposure and allow a swift and organized recovery should a disaster occur. The All-Hazards Mitigation Plan does not identify specific evacuation routes in the city. There are procedures in place overseen by the City that would guide emergency response, and the project would not impair or interfere with such efforts during construction or operation.

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#### Construction

The construction phase would include employees, vendors, and equipment traveling to and from the project site, which may temporarily obstruct traffic along Live Oak Lane. Temporary traffic diversion, truck haul routes, and impacts to the roadway would be coordinated with the City and applicable emergency response agencies, including the LACFD and Irwindale Police Department, to ensure adequate access to/from the Arrow Highway and/or Live Oak Avenue intersections with Live Oak Lane during construction of the proposed project.

Construction of the proposed project would maintain emergency access and emergency egress routes during project construction. Therefore, temporary construction of the proposed project would not affect the implementation of an emergency responder or evacuation plan, and impacts would be less than significant.

#### Operation

The Los Angeles County Public Works Department identifies I-605 and Arrow Highway as disaster routes; these roadways border the project site on the west and north, respectively (LACPW 2008). Arrow Highway provides east-west egress from Irwindale connects to I-605, a north-south disaster route.

As discussed in Section 8.3, *Population and Housing*, of Chapter 8, *Impacts Found Not to Be Significant*, of this DEIR, implementation of the proposed project would not directly generate additional population because it would not result in the development of residential land uses. Furthermore, while the proposed project would result in an estimated 580 long-term new jobs, as discussed in Section 8.3, the projected employment for the proposed project would be well within the total employment forecast for the City (projected 20,300 jobs in the City of Irwindale by 2020 and 21,000 by 2035 compared to 15,229 jobs in the City per the US Census (2023). As the Regional Housing Needs Assessment (RHNA) calculated for 2021-2029 has accounted for the housing need in Irwindale and the surrounding cities based on the forecast of 20,300 jobs by 2020, any new growth in population associated with the proposed project would not exceed housing assumptions from the RHNA.

The proposed project would not include any physical changes to evacuation or emergency response routes, interfere with the daily operations of emergency responders, or result in any causes for emergency plans to be modified. The City's Building and Safety department, along with the Los Angeles County Fire Department and Irwindale Police Department, would review building plans during plan check to ensure adequate site access is maintained and that project driveways would not interfere with circulation on adjacent streets, including Arrow Highway, Live Oak Lane, and Live Oak Avenue. Therefore, the proposed project would not impair the implementation of or physically interfere with adopted emergency response or emergency evacuation plan or use of these evacuation routes. Project-related impacts would be less than significant.

***Level of Significance Before Mitigation:*** Less than significant.

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**Impact 5.7-5: The proposed project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. [Threshold H-7]**

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As noted in Chapter 8, Section 8.5, *Wildfire*, wildland fire hazard areas are typically characterized by limited access, rugged terrain, limited water supply, and combustible vegetation. The project site is in an urbanized area

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and is not within a Very High Fire Hazard Severity Zone (CALFIRE 2011). However, the northern boundary of the site is adjacent to a Very High Fire Hazard Severity Zone in the open space area that is associated with San Gabriel River flood control operations. Portions of the I-605 on-ramp, Arrow Highway, and Live Oak Lane that abut the northern end of the project site would serve as fire breaks. Furthermore, upon completion of the proposed project, the majority of the project site (excluding the retention basin) would generally be flat with an elevation of 400 to 415 feet without significant topography, and there would be no steep slopes where high winds can exacerbate fire risks. Therefore, the proposed project would not exacerbate wildfire danger, and impacts would be less than significant.

*Level of Significance Before Mitigation:* Less than significant.

### 5.7.5 Cumulative Impacts

The area considered for cumulative impacts is the service area of LACFD, the affected CUPA. The assessment of potential cumulative impacts regarding hazards and hazardous materials refers to the potential for on-site and off-site hazardous materials to have a cumulative effect on the public or the environment. No Project-related significant impacts were identified regarding hazards and hazardous materials. Additionally, other projects would use, store, transport, and dispose of increased amounts of hazardous materials and thus could pose substantial risks to the public and the environment. The use, storage, transport, and disposal of hazardous materials by other projects would conform with regulations described in Section 5.7.1.1, above. Cumulative impacts would be less than significant after compliance with such regulations, and project impacts would not be cumulatively considerable.

The project site is not within one-quarter mile of any existing or proposed school; therefore, it would not contribute to a cumulative impact associated with emitting hazardous emissions or handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

The project site is not in an airport land use plan or within two miles of a private airstrip and would not contribute to a cumulative impact associated with a public or private airport.

The proposed project site is not within a Very High Fire Hazard Severity Zone and would be required to comply with the provisions of local and state regulations for fire safety. Therefore, the proposed project would not contribute to a cumulative impact associated with exposing people or structures to a significant risk of loss, injury, or death involving wildland fires.

Therefore, the project would not contribute to the effects of the cumulative impact regarding hazards and hazardous materials, and impacts would be less than significant.

### 5.7.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, Impacts 5.7-1 through 5.7-5 would be less than significant.

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#### 5.7.7 Mitigation Measures

No mitigation measures required.

#### 5.7.8 Level of Significance After Mitigation

Impacts 5.7-1 through 5.7-5 are less than significant.

#### 5.7.9 References

- American Society for Testing and Materials (ASTM). 2013, November. American Society for Testing and Materials (ASTM) Practice for ESAs: Phase I Assessment Process. ASTM Standard E 1527-13.
- . 2021, November. American Society for Testing and Materials (ASTM) Practice for ESAs: Phase I Assessments Process. ASTM Standard E 1527-21.
- California Department of Forestry and Fire Protection (CALFIRE). 2011. “City of Irwindale.” Very High Fire Hazard Severity Zones in LRA. Accessed August 7, 2023. <https://osfm.fire.ca.gov/media/5823/irwindale.pdf>.
- California Department of Resources, Recycling, and Recovery (CalRecycle). 2023. Solid Waste Information System website. Accessed August 7, 2023. <https://www2.calrecycle.ca.gov/SolidWaste/Site/Search>.
- Department of Toxic Substances Control (DTSC). 2023. EnviroStor website. Accessed August 7, 2023. <https://www.envirostor.dtsc.ca.gov/public/>.
- Los Angeles County Public Works Department (LACPWD). 2008. City of Irwindale Disaster Routes. Accessed August 7, 2023. <https://pw.lacounty.gov/dsg/disasterroutes/map/Irwindale.pdf>.
- National Fire Protection Association (NFPA). 2022. Energy Storage Systems (ESS) and Solar Safety. Accessed May 5, 2023. <https://www.nfpa.org/News-and-Research/Resources/Emergency-Responders/High-risk-hazards/Energy-Storage-Systems>.
- State Water Resources Control Board (SWRCB), 2023. GeoTracker website. Accessed August 7, 2023. <https://geotracker.waterboards.ca.gov/>.
- United States Environmental Protection Agency (USEPA). 2023a. EJScreen website. Accessed August 7, 2023. <https://ejscreen.epa.gov/mapper/>
- . 2023b. EnviroMapper website. Accessed August 7, 2023. <https://geopub.epa.gov/myem/efmap/index.html>.

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### 5.8 HYDROLOGY AND WATER QUALITY

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts of the proposed Irwindale Gateway Specific Plan to hydrology and water quality conditions in the City of Irwindale. Hydrology deals with the distribution and circulation of water, both on land and underground. Water quality deals with the quality of surface- and groundwater. Surface water includes lakes, rivers, streams, and creeks; groundwater is under the earth's surface. The analysis in this section is based in part on the following technical reports:

- *Preliminary Hydrology Report*, David Evans and Associates, March 20, 2023
- *Preliminary LID Report*, David Evans and Associates, March 20, 2023
- *Water Supply Assessment*, Stetson Engineers, March 2023
- *Geotechnical Engineering Exploration Update and Remedial Grading Recommendations Proposed Commercial/Retail Development Nu-Way Live Oak Landfill*, Irvine Geotechnical Inc., November 23, 2010

Complete copies of these studies are included in the Technical Appendices to this Draft EIR as Appendices I1, I2, M3, and G1, respectively.

#### 5.8.1 Environmental Setting

##### 5.8.1.1 REGULATORY BACKGROUND

Federal, state, and local laws, regulations, plans, or guidelines related to hydrology and water quality that are applicable to the Specific Plan are summarized below.

#### Federal Regulations

##### *Clean Water Act*

The United States Environmental Protection Agency (EPA) is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) (codified at 33 US Code Sections 1251 to 1376) of 1972 is the primary federal law that governs and authorizes water quality control activities by the EPA and the states. Various elements of the CWA, which address water quality, are discussed below.

Permits to dredge or fill waters of the United States are administered by the United States Army Corps of Engineers (USACE) under Section 404 of the CWA. "Waters of the United States" are defined as territorial seas and traditional navigable waters, perennial and intermittent tributaries to those waters, lakes and ponds and impoundments of jurisdictional waters, and wetlands adjacent to jurisdictional waters. The regulatory branch of the USACE is responsible for implementing and enforcing Section 404 of the CWA and issuing permits. Any activity that discharges fill material and/or requires excavation in waters of the United States must obtain a Section 404 permit. Before issuing the permit, the USACE requires that an analysis be conducted to demonstrate that the proposed project is the least environmentally damaging practicable alternative. Also, the

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USACE is required to comply with the National Environmental Policy Act before it can issue an individual Section 404 permit.

Under Section 401 of the CWA, every applicant for a Section 404 permit that may result in discharge to a water body must first obtain State water quality certification that the proposed activity will comply with State water quality standards. Certifications are issued in conjunction with USACE Section 404 permits for dredge and fill discharges. In addition, an application for Individual Water Quality Certification and/or Waste Discharge Requirements must be submitted for any activity that would result in the placement of dredged or fill material in waters of the State that are not jurisdictional to the USACE, such as isolated wetlands, to ensure that the proposed activity complies with State water quality standards. In California, the authority to either grant water quality certification or waive the requirement is delegated by the State Water Resources Control Board (SWRCB) to the nine Regional Water Quality Control Boards (RWQCB).

The EPA has published water quality regulations under Volume 40 of the Code of Federal Regulations. Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question and (2) criteria that protect the designated uses. Section 304(a) requires the EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use.

When water quality does not meet CWA standards and compromises designated beneficial uses of a receiving water body, Section 303(d) of the CWA requires that the water body be identified and listed as “impaired.” Once a water body has been designated as impaired, a total maximum daily load (TMDL) must be developed for the impairing pollutant(s). A TMDL is an estimate of the total load of pollutants from point, nonpoint, and natural sources that a water body may receive without exceeding applicable water quality standards, with a factor of safety included. Once established, the TMDL allocates the loads among current and future pollutant sources to the water body.

#### *Fish and Wildlife Coordination Act*

The Fish and Wildlife Coordination Act provides the basic authority for the United States Fish and Wildlife Service to evaluate impacts to fish and wildlife from proposed water resource development projects. This act requires that all federal agencies consult with the US Fish and Wildlife Service, the National Marine Fisheries Service, and State wildlife agencies (e.g., the California Department of Fish and Wildlife) for activities that affect, control, or modify waters of any stream or bodies of water. Under this act, the US Fish and Wildlife Service has responsibility for reviewing and commenting on all water resources projects. For example, it would provide consultation to the USACE prior to issuance of a Section 404 permit.

#### *National Pollutant Discharge Elimination System*

The National Pollutant Discharge Elimination System (NPDES) permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States, including discharges from municipal separate storm sewer systems (MS4). Federal NPDES permit regulations have been established for

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broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

Under the NPDES program, all facilities that discharge pollutants into waters of the United States are required to obtain an NPDES permit. Requirements for stormwater discharges are also regulated under this program. In California, the NPDES permit program is administered by SWRCB through the nine RWQCBs. The specific plan area lies within the jurisdiction of the Los Angeles RWQCB (Region 4) and therefore would be subject to the requirements of the Los Angeles County MS4 permit.

### *National Flood Insurance Program*

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program, which provides subsidized flood insurance to communities that comply with FEMA regulations limiting development in flood plains. FEMA also issues Flood Insurance Rate Maps that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The design standard for flood protection established by FEMA is the 100-year flood event, also described as a flood that has a 1-in-100 chance of occurring in any given year.

### *National Dam Safety Act of the Federal Emergency Management Authority*

The National Dam Safety Act of 2006 authorized a program to reduce the risks to life and property from dam failure by establishing a safety and maintenance program. As the lead federal agency for the National Dam Safety Program, FEMA is responsible for coordinating efforts to secure the safety of dams throughout the United States. The National Dam Safety Program targets the improvement of dams and the safety of those who live in surrounding communities. Since it was first authorized by Congress in 1996, there have been marked improvements in the safety of many of the nation's dams. The program makes federal funds available to the states, which are primarily responsible for protecting the public from failures of nonfederal dams and pursuing initiatives that enhance the safety of dams posing the greatest risk to people and property.

## **State Regulations**

### *Porter-Cologne Water Quality Act*

The Porter-Cologne Water Quality Act (Water Code Sections 13000 et seq.) is the basic water quality control law for California. This act established the SWRCB and divided the state into the nine RWQCBs. The SWRCB is the primary State agency responsible for the protection of California's water quality and groundwater supplies. The RWQCBs carry out the regulation, protection, and administration of water quality in each region. Each regional board is required to adopt a water quality control plan or basin plan that recognizes and reflects the regional differences in existing water quality, the beneficial uses of the region's ground and surface water, and local water quality conditions and problems.

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The Porter-Cologne Act also authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, NPDES permits, Section 401 water quality certifications, or other approvals. Other State agencies with jurisdiction over water quality regulation in California include the California Department of Health Services for drinking water regulations, the California Department of Fish and Wildlife, and the Office of Environmental Health and Hazard Assessment.

#### *SWRCB General Industrial Permit*

The Statewide General Permit for Stormwater Discharges Associated with Industrial Activities—Order No. 2014-0057-DWQ and amended by 2015-0122-DWQ (2018)—implements the federally required stormwater regulations in California for stormwater associated with industrial activities that discharge to waters of the United States. This regulation covers facilities that are required by federal regulations or by the RWQCBs to obtain an NPDES permit. Dischargers are required to eliminate nonpoint stormwater discharges, develop Stormwater Pollution Prevention Plans (SWPPP) that include best management practices (BMP), conduct monitoring of stormwater runoff, and submit all compliance documents via the SWRCB’s Stormwater Multiple Application and Report Tracking System (SMARTS) program.

#### *SWRCB Construction General Permit*

The SWRCB adopted the revised Statewide Construction General Permit (CGP) on September 8, 2022 (Order WQ 2022-0057-DWQ), which became effective on September 1, 2023. Under the terms of the permit, applicants must file Permit Registration Documents (PRD) with the SWRCB prior to the start of construction. The PRDs include a Notice of Intent, risk assessment, site map, SWPPP, annual fee, and a signed certification statement. The PRDs are submitted electronically to the SWRCB via the SMARTS website.

Applicants must demonstrate conformance with applicable BMPs and prepare a SWPPP containing a site map that shows the construction site perimeter; existing and proposed buildings, lots, roadways, and stormwater collection and discharge points; general topography both before and after construction; and drainage patterns across the project site. The SWPPP must list BMPs that would be implemented to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources. Additionally, the SWPPP must contain a weekly visual monitoring program and BMP inspections prior to, during, and after qualifying precipitation events. Water quality monitoring is also required with a schedule based on the risk level of the site.

#### *SWRCB Trash Amendments*

On April 7, 2015, the SWRCB adopted an amendment to the Water Quality Control Plan for Ocean Waters of California to control trash as well as Part 1, Trash Provisions, of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California. They are collectively referred to as “the Trash Amendments.” The Trash Amendments apply to all surface waters of California and include a land-use-based compliance approach to focus trash controls on areas with high-trash-generation rates. Areas such as high-density residential, industrial, commercial, mixed urban, and public transportation stations are considered priority land uses. There are two compliance tracks:

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- **Track 1.** Permittees install, operate, and maintain a network of certified full-capture systems in storm drains that capture runoff from priority land uses.
- **Track 2.** Permittees must implement a plan with a combination of full-capture systems, multi-benefit projects, institutional controls, and/or other treatment methods that have the same effectiveness as Track 1 methods.

The Trash Amendments provide a framework for permittees to implement its provisions. Full compliance must occur within 10 years of the permit, and permittees must also meet interim milestones, such as average load reductions of 10 percent per year.

### *The Sustainable Groundwater Management Act*

The Sustainable Groundwater Management Act (SGMA) passed in September 2014 and is a comprehensive three-bill package that provides a framework for the sustainable management of groundwater supplies by local authorities. SGMA requires the formation of local groundwater sustainability agencies to assess local water basin conditions and adopt locally based management plans. SGMA provides 20 years for groundwater sustainability agencies to implement plans, achieve long-term groundwater sustainability, and protect existing surface water and groundwater rights. SGMA also provides local groundwater sustainability agencies with the authority to require registration of groundwater wells, measure and manage extractions, require reports and assess fees, and request revisions of basin boundaries, including establishing new subbasins. Furthermore, under SGMA, groundwater sustainability agencies responsible for high- and medium-priority basins must adopt groundwater sustainability plans within five to seven years, depending on whether the basin is in critical overdraft.

### *Senate Bill 92*

On June 27, 2017, Governor Brown signed Senate Bill (SB) 92 into law, which set forth new requirements focused on dam safety. As part of this legislation, dam owners must now submit inundation maps to the Department of Water Resources (DWR). After the maps are approved, the dam owner must submit an emergency action plan to Governor's Office of Emergency Services (Cal OES). The dam owner must submit updated plans and inundation maps every 10 years, or sooner under certain conditions. Cal OES will review and approve the emergency action plans. This legislation set forth additional provisions for the emergency action plans including compliance requirements, exercises of the plan, and coordination with local public safety agencies.

### *Emergency Services Act*

The Emergency Services Act under California Government Code Section 8589.5(b) calls for public safety agencies whose jurisdiction contains populated areas below dams to adopt emergency procedures for the evacuation and control of these areas in the event of a partial or total failure of the dam. Cal OES, formerly the California Emergency Management Agency, is responsible for the coordination of overall State agency response to major disasters and assisting local governments in their emergency preparedness, response, recovery, and hazard mitigation efforts. In addition, the Cal OES Dam Safety Program provides assistance and

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guidance to local jurisdictions on emergency planning for dam failure events and is also the designated repository of dam failure inundation maps.

#### *Division of Safety of Dams*

Since 1929, the State of California has supervised all nonfederal dams in California through the Dam Safety Program under the jurisdiction of the California Department of Safety of Dams (DSOD). The DSOD came into existence as a direct result of the failure of St. Francis Dam in Southern California in 1928, which resulted in the death of more than 450 people.

The DSOD engineers and engineering geologists review and approve plans and specifications for the design of dams and oversee their construction to ensure compliance with the approved plans and specifications. Reviews include site geology, seismic setting, site investigations, construction material evaluation, dam stability, hydrology, hydraulics, and structural review of appurtenant structures. In addition, the DSOD engineers inspect over 1,200 dams on a yearly schedule to ensure they are performing and being maintained in a safe manner.

#### **Regional Regulations**

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

The Los Angeles RWQCB's Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan:

- Designates beneficial uses for surface and ground waters.
- Sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's antidegradation policy.
- Describes implementation programs to protect all waters in the region.

In addition, the Basin Plan incorporates (by reference) all applicable SWRCB and RWQCB plans and policies and other pertinent water quality policies and regulations.

The Basin Plan is a resource for the RWQCB and others who use water and/or discharge wastewater in Region 4. Other agencies and organizations involved in environmental permitting and resource management activities also use the Basin Plan. Finally, the Basin Plan provides valuable information to the public about local water quality issues.

##### *Los Angeles RWQCB (MS4) Permit for the Coastal Watershed of Los Angeles and Ventura Counties*

On July 23, 2021, the Los Angeles RWQCB adopted a Regional Phase I Municipal Separate Stormwater Sewer System (MS4) Permit for discharges within the coastal watersheds of Los Angeles and Ventura counties (Order No. R4-2021-0105, NPDES No. CAS004004). The municipal discharges of stormwater and nonstorm water by the City are subject to waste discharge requirements in this MS4 permit.

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### *Los Angeles County Low Impact Development Standards Manual*

The County of Los Angeles prepared the 2013 Low Impact Development (LID)<sup>1</sup> Standards Manual to comply with the requirements of the NPDES MS4 Permit. The LID Standards Manual provides guidance for the implementation of stormwater quality control measures in new development and redevelopment projects with the intention of improving water quality and mitigating potential water quality impacts from stormwater and nonstorm water discharges.

### **Local Regulations**

#### *City of Irwindale Municipal Code*

Chapter 8.28 (Storm Water and Urban Runoff Pollution) of the Irwindale Municipal Code was adopted pursuant to the CWA to protect and improve water quality of receiving waters by:

- Reducing illicit discharges to the municipal storm water system to the maximum extent practicable.
- Eliminating illicit connections to the municipal storm water system.
- Eliminating spillage, dumping, and disposal of pollutant materials into the municipal storm water system.
- Reducing pollutant loads in storm water and urban.

### **5.8.1.2 EXISTING CONDITIONS**

#### **Regional Drainage**

The Los Angeles RWQCB encompasses all coastal watersheds and drainages flowing to the Pacific Ocean between Rincon Point (on the coast of western Ventura County) and the eastern Los Angeles County line. In addition, the Los Angeles RWQCB includes all coastal waters within three miles of the continental and island coastlines.

The Los Angeles RWQCB regulates over 1,000 discharges of wastewater from a variety of industrial and municipal sources and oversees the vast network of municipal separate sewer systems serving the two counties and 99 cities. Generally, largely uncontrolled discharges of pollutants from municipal separate storm sewer systems and from nonpoint sources are believed to be the greatest threats to rivers and streams within the Los Angeles RWQCB's region. Recent advances in permitting municipal separate storm sewer system discharges, and control of certain nonpoint sources are expected to remedy many of these threats.

#### **Local Drainage**

The project site is within the Rio Hondo watershed. The Rio Hondo watershed is a subwatershed of the Los Angeles River watershed and is also linked to the adjacent San Gabriel River watershed. Historically, the Los

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<sup>1</sup> LID describes a land planning and engineering design approach to manage stormwater runoff as part of green infrastructure. LID emphasizes conservation and use of on-site natural features to protect water quality.

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Angeles and San Gabriel Rivers were wide shallow rivers consisting of a braided series of channels that would periodically intermingle following large storm events. As a result of this dynamic, the Rio Hondo once formed the main bed of the San Gabriel River. Today, however, this dynamic has been engineered into three channels to bring water from the San Gabriel to the Rio Hondo.

Two different landscapes shape the overall character of the 142 square miles of the Rio Hondo watershed. The rugged steep terrain of the San Gabriel Mountains defines the upper reaches of the watershed, much of which lies within the Angeles National Forest. This natural undeveloped landscape changes below the foothills where the nature of the watershed is transformed by the urban and largely built-out San Gabriel Valley. Encompassing 21 different cities and unincorporated portions of Los Angeles County, this densely developed urban landscape includes only a few remaining areas of open space and isolated patches of natural habitat (Arroyo Seco Foundation 2023).

#### Site Hydrology

At the time of the Notice of Preparation for this Draft EIR, reclamation of the former landfill was underway in accordance with the August 22, 2022, Operations Plan approved by Los Angeles RWQCB (see Section 3.3.1.1, *Project Background*, of this DEIR). The site reclamation includes the removal/demolition of any remaining structures, addressing the existing landfill, remedial over-excavation, and rough grading the project site. The grading plan associated with the reclamation has been approved by the County of Los Angeles Department of Public Works. This includes any applicable environmental review pursuant to CEQA. The approval and implementation of these activities serve as baseline (existing) conditions for analysis of potential environmental impacts in this DEIR.

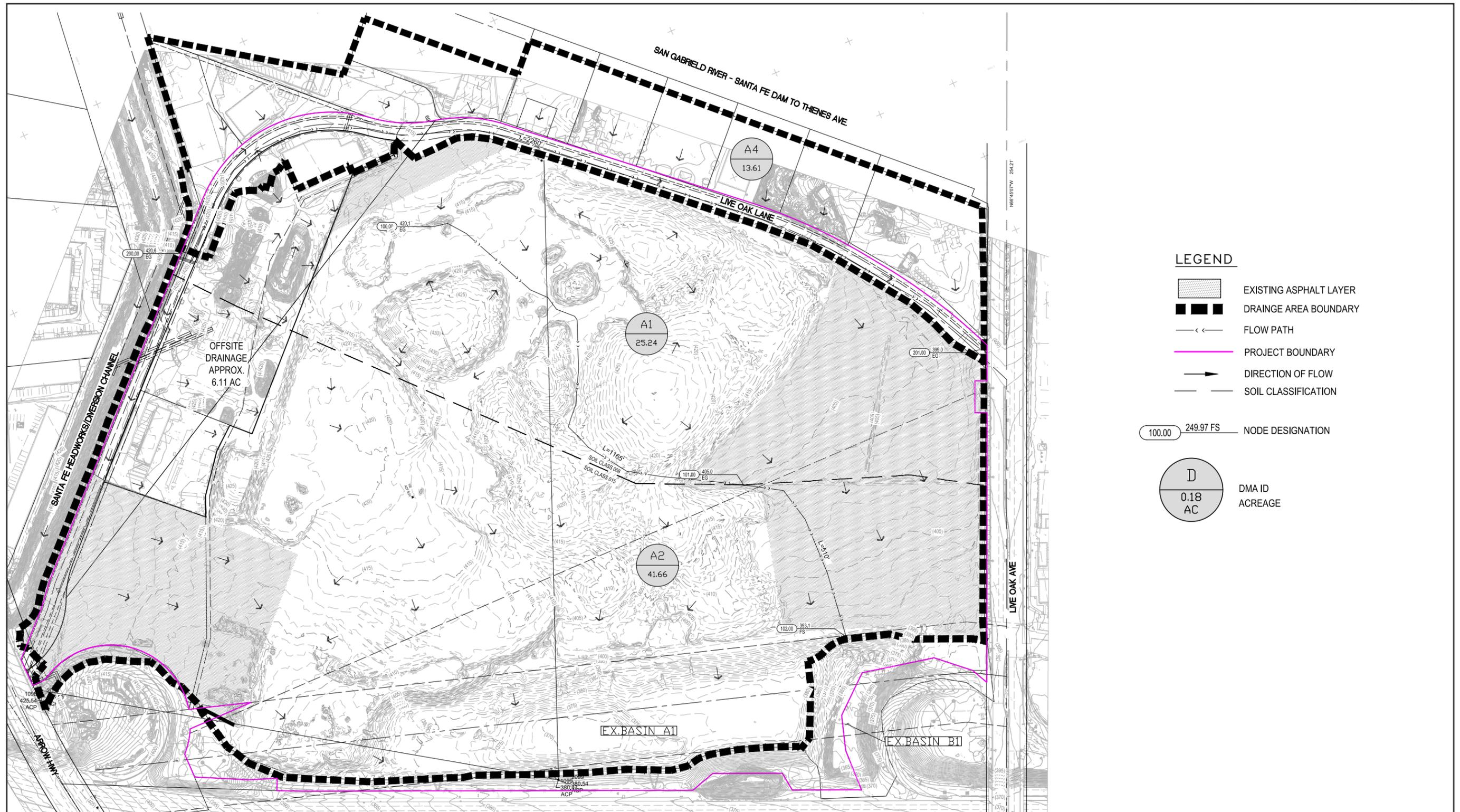
Per the Operations Plans, the site will be rough graded up to the limits of two existing detention basins/pits located in the western portion of the site (see Figure 5.8-1, *Existing Conditions Hydrology Map*). The pits will be excavated commencing in native soils at the top of the pit walls and will proceed at a slope to the silt pond at the bottom of the pits. Runoff will continue to sheet flow west to the remediated basins/pits. The overall drainage flow will be in a southwest direction toward I-605, with an average slope of 3 percent. Prior to the use of the project site as a quarry, stormwater flowed across the site from the north and east to the southwest and would leave the site at its southwest corner and discharge to culverts beneath Live Oak Avenue. These existing storm drain facilities are no longer used.

#### Surface Water Quality

Section 303(d) of the 1972 CWA requires states to identify water bodies that do not meet water quality objectives and do not support their beneficial uses. Every two years each state must submit to the EPA an updated list, called the 303(d) list. In addition to identifying the water bodies that are not supporting beneficial uses, the list identifies the pollutant or stressor causing impairment and establishes a priority for developing a control plan to address the impairment. The list identifies water bodies where 1) a total maximum daily load has been approved by the EPA and implementation is available, but water quality standards are not yet met, and 2) water bodies where the water quality problem is being addressed by an action other than a total maximum daily load and water quality standards are not yet met.

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Figure 5.8-1 - Existing Conditions Hydrology Map



LEGEND

-  EXISTING ASPHALT LAYER
-  DRAINAGE AREA BOUNDARY
-  FLOW PATH
-  PROJECT BOUNDARY
-  DIRECTION OF FLOW
-  SOIL CLASSIFICATION

100.00 249.97 FS NODE DESIGNATION

 DMA ID  
0.18  
AC ACREAGE

0 225  
Scale (Feet)



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The San Gabriel River is listed on the 303(d) list due to the presence of cyanide, lead, indicator bacteria, trash, pH, and water temperature issues. The San Gabriel Estuary is listed for copper, dioxin, indicator bacteria, nickel, and dissolved oxygen (SWRCB 2022).

### **Groundwater**

The project site is in the Main San Gabriel Valley Groundwater Basin (Main Basin). The Main Basin is in the San Gabriel Valley, which is in southeastern Los Angeles County and is bounded on the north by the San Gabriel Mountains, on the west by the San Rafael and Merced Hills, on the south by the Puente Hills and the San Jose Hills, and on the east by a low divide between the San Gabriel River system and the Upper Santa Ana River system. The total freshwater storage capacity of the Main Basin is estimated to be 8.7 million acre-feet. Of that storage, about 1,000,000 acre-feet are historically considered to have been actively managed for local public water supply. The court adjudication of the Main Basin in 1973 provided groundwater management that allows operation of basin storage to meet water demands and provides a mechanism to fund the purchase and replenishment of untreated imported water to supplement recharge of local water. The Basin has not been identified by DWR as a groundwater basin subject to critical overdraft.

Historically high groundwater has been estimated to range between depths of 72 to 75 feet below ground surface (see Appendix G1).

### **Flood Hazards**

#### *Designated Flood Zones*

According to the most recent Flood Insurance Rate Map that covers the Specific Plan area (FIRM No. 06037C1700F, September 26, 2008), the project site is not within a 100-year or 500-year floodplain or within an area with flood risk due to levees (FEMA 2020).

#### *Seismically Induced Dam Inundation*

The Santa Fe Dam and Reservoir are the primary flood control facilities in the City. The 2,300-acre facility is owned by USACE and covers one-third of the City's total land area. The reservoir is bounded generally by Arrow Highway and the I-210 and I-605 freeways in the north-central portion of Irwindale. The dam was completed in 1948 and is an earthen fill structure with a 513-foot elevation, a crest width of 30 feet, and a crest length of 23,800 feet at the top. The reservoir area has both an east-west and north-south span of approximately two miles each. The Santa Fe Dam is designed to regulate the runoff from a drainage area consisting of 236 square miles.

The reservoir area lies in a heavily urbanized area of both commercial and residential growth. For the protection of the nearby communities, during a flood event, releases of water from the reservoir may be increased to a maximum of 41,000 cubic feet per second (cfs). In the unlikely event of a dam failure, water would flow to the southwest (Irwindale 2008).

As shown in the City's Hazard Mitigation Plan, the project site is in the dam inundation area of the Santa Fe Dam (Irwindale 2012). Additionally, as shown in Figure 5.8-2, *Dam Inundation Areas*, portions of the western part of the project site are within the San Gabriel No.1 dam inundation area (DWR 2023b).

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### HYDROLOGY AND WATER QUALITY

The San Gabriel No.1 Dam is owned and operated by the Los Angeles County Department of Public Works. The dam was completed in 1938 and is an earth and rock structure with a 320-foot elevation. The crest length is 1,520 feet, and it has a reservoir capacity of 44,183 acre-feet (DOD 2022).

#### *Seiches*

A seiche is a surface wave created when an inland water body is shaken, usually by an earthquake. No surface water bodies pose a flood hazard to the project area due to a seiche. The Santa Fe Reservoir is a 20-acre reservoir approximately a mile northeast of the project site. The project site would not be affected by seiche conditions at this reservoir due to its distance from the project site.

#### *Tsunamis*

A tsunami is an ocean wave caused by a sudden displacement of the ocean floor, most often due to earthquakes. The project site is not at risk of flooding from tsunami because it is about 33 miles from the ocean (DOC 2022).

### 5.8.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

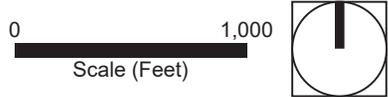
- HYD-1 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
- HYD-2 Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- HYD-3 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
  - i) Result in a substantial erosion or siltation on- or off-site.
  - ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite.
  - iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
  - iv) Impede or redirect flood flows.
- HYD-4 In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- HYD-5 Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

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Figure 5.8-2 - Dam Inundation Area – San Gabriel No.1 Dam



- Project Site Boundary
- San Gabriel No. 1 Dam Inundation Area
- City Boundary



Source: California Department of Water Resources, 2023.

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## 5. Environmental Analysis HYDROLOGY AND WATER QUALITY

### 5.8.3 Applicable Specific Plan Development Standards and Design Guidelines

#### 5.8.3.1 DEVELOPMENT STANDARDS

There are no Specific Plan development standards pertaining to hydrology and water quality.

#### 5.8.3.2 DESIGN GUIDELINES

There are no Specific Plan design guidelines pertaining to hydrology and water quality.

### 5.8.4 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Notice of Preparation disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.8-1: Construction and operation of development accommodated by the Specific Plan would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. [Threshold HYD-1]**

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#### Construction

Clearing, grading, excavation, and construction activities associated with implementation of the Specific Plan have the potential to impact water quality through soil erosion, increasing the amount of silt and debris carried in runoff. Additionally, the use of construction materials, such as fuels, solvents, and paints, may present a risk to surface water quality. Finally, the refueling and parking of construction vehicles and other equipment on-site during construction may result in oil, grease, or related pollutant leaks and spills that may discharge into the storm drain system.

To minimize these potential impacts, development accommodated by the Specific Plan would require compliance with the CGP (Order WQ 2022-0057-DWQ), which requires the preparation and implementation of a SWPPP. A SWPPP requires the incorporation of BMPs to control sediment, erosion, and hazardous materials contamination of runoff during construction and prevent contaminants from reaching receiving water bodies. The SWRCB mandates that projects that disturb one or more acres of land must obtain coverage under the Statewide CGP. The CGP also requires that prior to the start of construction activities, the project developer must file PRDs with the SWRCB, which include a Notice of Intent risk assessment, site map, annual fee, signed certification statement, SWPPP, and post-construction water balance calculations. The construction contractor is always required to maintain a copy of the SWPPP at the site and implement all construction BMPs identified in the SWPPP during construction activities. Prior to the issuance of a grading permit, the project developer is required to provide proof of filing the PRDs with the SWRCB. Categories of potential BMPs that would be implemented for the Specific Plan are described in Table 5.8-1.

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**Table 5.8-1 Construction Best Management Practices**

Category	Purpose	Examples
Erosion Controls	Protects the soil surface and prevents soil particles from being detached by rainfall, flowing water, or wind.	Scheduling, preserving existing conditions, mulch, soil binders, geotextiles, mats, hydroseeding, earth dikes, swales, velocity dissipating devices, slope drains, streambank stabilization, compost blankets, soil preparation/roughening, and non-vegetative stabilization.
Sediment Controls	Traps soil particles after they have been detached and moved by rain, flowing water, or wind.	Barriers such as silt fences, straw bales, sandbags, fiber rolls, and gravel bag berms; sediment basins; sediment traps; check dams; storm drain inlet protection; compost socks and berms; biofilter bags; manufactured linear sediment controls; and cleaning measures such as street sweeping and vacuuming.
Wind Erosion Controls	Minimizes dust nuisances.	Applying water or other dust palliatives to prevent or minimize dust nuisance, reducing soil-moving activities during high winds, and installing erosion control BMPs for temporary wind control.
Tracking Controls	Prevents or reduces the tracking of soil offsite by vehicles	Stabilized construction roadways and construction entrances/exits and entrance/outlet tire wash.
Non-Storm Water Management Controls	Prevents pollution by limiting or reducing potential pollutants at their source or eliminating off-site discharge. Prohibits illicit connections or discharges.	Water conservation practices, BMPs specifying methods for: dewatering operations; temporary stream crossings; clear water diversions; pile driving operations; temporary batch plants; demolition adjacent to water; materials over water; potable water and irrigation; paving and grinding operations; cleaning, fueling, and maintenance of vehicles and equipment; concrete curing; concrete finishing.
Waste Management and Controls (i.e., good housekeeping practices)	Management of materials and wastes to avoid contamination of stormwater.	Proper material delivery and storage and material use, spill prevention and control, stockpile management, contaminated soil management, and management of solid, concrete, sanitary/septic, liquid, and hazardous wastes.

Source: CASQA 2019.

Implementation of the Specific Plan would also require consultation with the USACE and RWQCB for the construction of a proposed storm drain (Line E) that would outfall to the San Gabriel River. These activities could require authorization under Sections 404 and 401 of the CWA. If required, permits and certifications

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would be obtained prior to construction to ensure that the proposed development minimizes the potential for erosion and sediment discharge into the San Gabriel River and complies with water quality standards.

In addition, erosion control plans would be prepared as a Condition of Approval and implemented during construction, and the project developer would be required to comply with City grading permit regulations and inspections to reduce sedimentation and erosion. Project construction activities would also implement the requirements of Chapter 8.28, Storm Water and Urban Runoff Pollution, of the City's municipal code.

Submittal of the PRDs and implementation of the SWPPP, requirements of the municipal code, the erosion control plan, and grading requirements throughout the construction phase of the development accommodated by the Specific Plan would address anticipated pollutants of concern from construction activities. With adherence to the SWPPP and compliance with CGP and other preciously discussed applicable requirements, construction of the development accommodated by the Specific Plan would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. As a result, water quality impacts associated with construction activities would be less than significant.

### Operations

Once the project area has been developed pursuant to the Specific Plan, urban runoff could include a variety of contaminants that could impact water quality. Runoff from buildings, streets, driveways, and parking lots typically contain oils, grease, fuel, antifreeze, and byproducts of combustion (such as lead, cadmium, nickel, and other metals) as well as fertilizers, herbicides, pesticides, and other pollutants. Precipitation at the beginning of the rainy season may result in an initial stormwater runoff (first flush) with high pollutant concentrations.

The Specific Plan is considered a "Designated Project" per the MS4 Permit since it disturbs more than one acre and adds more than 10,000 square feet of impervious surface area. As such, an LID Report is required for the proposed development to demonstrate that the Stormwater Quality Design volume (SWQDV) is treated on-site.<sup>2</sup>

The analysis in the Preliminary LID Report (see Appendix I2) represents the analysis for Option 1. Option 2 with the Battery Energy Storage System (BESS) is anticipated to have a similar drainage pattern and would not have any more area of impervious surface compared to Option 1. Therefore, the analysis in the Preliminary LID Report is conservative.

Overall, the developed condition hydrology would follow the existing condition surface flow pattern, where drainage continues to flow south to the proposed detention basin. The existing pits would be hydraulically connected through proposed storm drainpipes. The proposed drainage areas are shown on Figure 5.8-3, *Proposed Conditions Hydrology Map*. The proposed on-site and off-site drainage can be described in five subdrainage areas:

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<sup>2</sup> The MS4 Permit requires designated projects to treat, on-site, the Stormwater Quality Design Volume from a design storm event. The design storm event is determined using the 0.75-inch 24-hour rain event or the 85th percentile 24-hour rain event, whichever is greater.

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- **Area A1** refers to the northerly drainage area that includes off-site drainage from the existing commercial site, proposed buildings 3 and 2, and pavement from parking stalls and drive aisles. The runoff would sheet flow to nearby catch basins, into the underground storm drain system, and into the proposed detention basin.
- **Area A2.1** refers to the on-site drainage in the middle of the site. This drainage area would include drainage from building 2, building 1, and pavement from the parking aisles and stalls. Stormwater will first drain to nearby catch basins, into the underground storm drain, and the into proposed detention basin.
- **Area A2.2** refers to the on-site drainage on the westerly side of the site. The drainage area includes drainage from building 1 and pavement from the parking isles and stalls. Stormwater enters the underground storm drain system through catch basins and then drains to the proposed detention basin.
- **Area A3** refers to the on-site drainage area that makes up the proposed detention basin. The basin is considered self-retaining and does not affect the on-site storm drain system. Runoff from the 85th percentile storm event would drain from the detention basins for on-site retention into two drywells<sup>3</sup> on the northwest boundary, adjacent to the basin and I-605. Any excess runoff associated with the 50-year storm event would be directed to Line E on Live Oak Avenue, which outfalls to the San Gabriel River to the east of the project.
- **Area A4** refers to the off-site area to the east of the proposed project. The drainage area includes runoff from the existing businesses on Live Oak Lane and the existing street width, which includes the improved sections that are part of the Specific Plan development. Stormwater follows the existing flow path, draining south to Live Oak Avenue along the street gutters on Live Oak Lane. Stormwater for this drainage area would first flow into four modular wetlands systems (MWS) and then into a catch basin. Water would drain into a proposed storm drain line that would connect to Line E on Live Oak Lane and drain to the San Gabriel River.

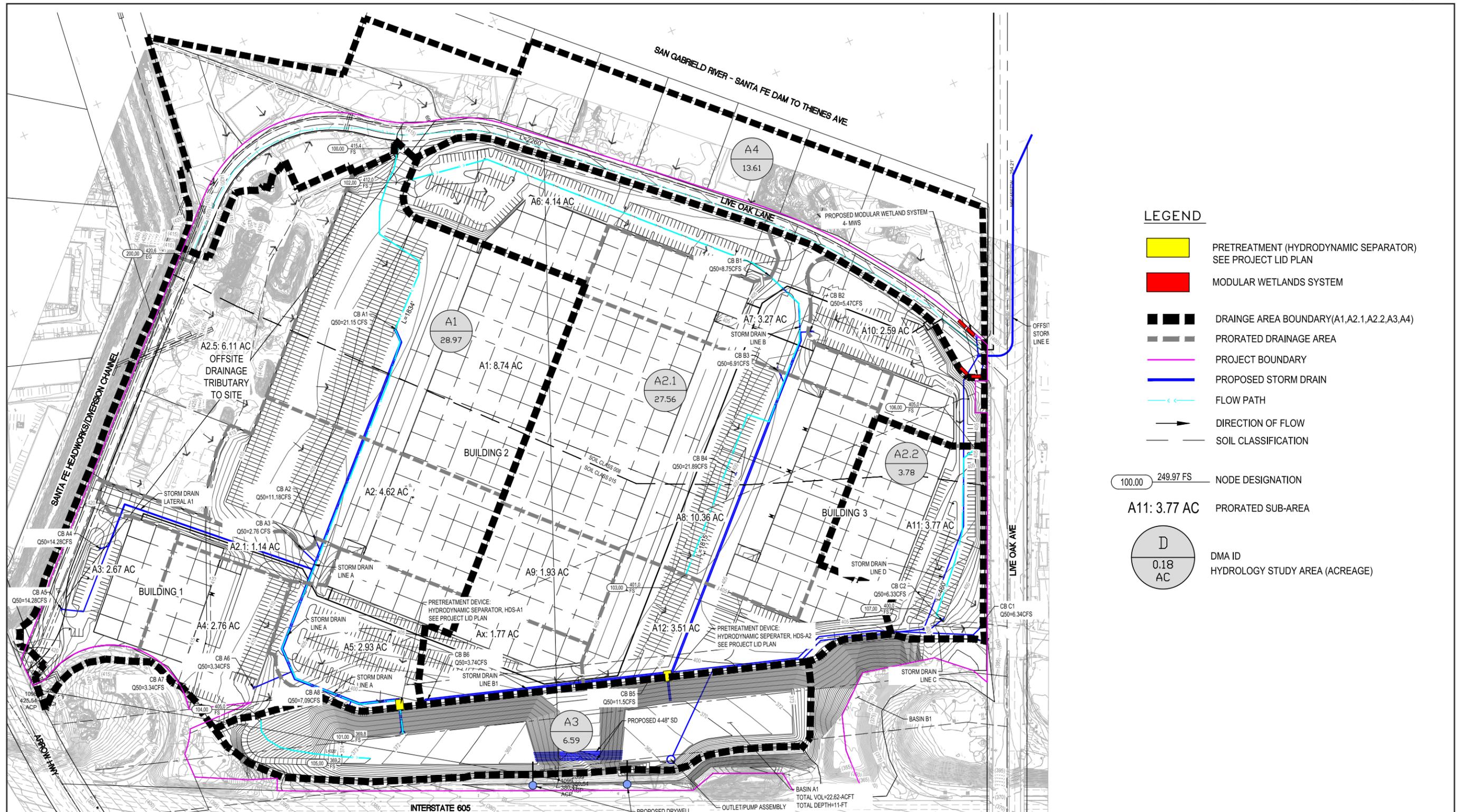
For areas A1 through A3, the proposed LID system would take advantage of the native soils percolation rates to infiltrate the SWQDv from the 85th percentile, 24-hour storm. The on-site detention basin would be designed to accommodate the SWQDv while providing temporary storage for the two proposed drywells. The SWQDv is 203,413 cubic feet, or 4.67 acre-feet. The proposed detention basin has a volume of 22.62 acre-feet. Therefore, the detention basin has adequate capacity.

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<sup>3</sup> A drywell is an underground cylindrical shaped container with holes in it. It is buried underground and surrounded by drain rock..

5. Environmental Analysis

Figure 5.8-3 - Proposed Conditions Hydrology Map



**LEGEND**

- PRETREATMENT (HYDRODYNAMIC SEPARATOR) SEE PROJECT LID PLAN
- MODULAR WETLANDS SYSTEM
- DRAINAGE AREA BOUNDARY(A1,A2.1,A2.2,A3,A4)
- PRORATED DRAINAGE AREA
- PROJECT BOUNDARY
- PROPOSED STORM DRAIN
- FLOW PATH
- DIRECTION OF FLOW
- SOIL CLASSIFICATION

100.00 249.97 FS NODE DESIGNATION

A11: 3.77 AC PRORATED SUB-AREA

D  
0.18  
AC DMA ID  
HYDROLOGY STUDY AREA (ACREAGE)



Source: David Evans & Associates, 2022.



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## 5. Environmental Analysis HYDROLOGY AND WATER QUALITY

The drywells would also take advantage of the infiltration capacity of native soils. Sizing and capacity analysis of the proposed drywell systems was calculated following the design guidelines defined in Los Angeles County Department of Public Works' (LACDPW) Low Impact Development Standards Manual for dry wells, which allows for a maximum drawdown time of 96 hours. The proposed drywells result in a maximum drawdown time of 58 hours (see Table 5.8-2) and are therefore adequately sized.

**Table 5.8-2 Capacity Analysis for Proposed Drywells**

Area	Acreage (acres)	Drywell Disposal Rates (cfs)	Factor of Safety	Design Disposal Rate per Drywell (cfs)	Disposal Rate for Two Drywells (cfs)	SWQDv (cf)	Drawdown Time (hrs)
A-1 through A-3	66.9	1.22	2.5	0.49	0.98	203,413	57.9

Source: Appendix I2.

Notes: cfs = cubic feet per second; cf= cubic feet; hrs =hours; SWQDv=stormwater quality design volume

Additionally, the on-site drainage would be pretreated before entering the basin using two nutrient separating baffle boxes<sup>4</sup> to extend the life of the drywells. The baffle boxes are designed based on the treatment flow at maximum bypass flow, which is based on the 50-year storm event, with one baffle box for area A-1 and one for areas A-2.1 and A-2.2. As shown in Table 5.8-3, the baffle boxes have adequate capacity to accommodate the peak flows from the project site.

**Table 5.8-3 Capacity Analysis for the Proposed Nutrient Separating Baffle Boxes**

Area	Acreage (acres)	SWQDv (cf)	Q <sub>50</sub> Bypass Flow (cfs)	Baffle Box Capacity (cfs)
A-1	29.0	96,010	70.1	102.7
A2.1-A2.2	31.3	103,849	70.9	102.7

Source: Appendix I2.

Notes: cfs = cubic feet per second; cf= cubic feet; SWQDv=Stormwater quality design volume

For area A4, treatment would occur through four modular wetlands systems. These areas are limited to space in the public right-of-way, and for that reason, compact biofiltration BMPs are the best option to treat stormwater from this area. The design would be based on the flow from the 85th percentile storm event. As shown in Table 5.8-4, the modular wetlands systems have adequate design capacity to treat runoff flows from area A4.

**Table 5.8-4 Capacity Analysis for the Proposed Modular Wetland Systems**

Area	Acreage (acres)	Q <sub>85</sub> Treatment Flow (cfs)	Treatment Capacity (cfs)
A-4	13.6	2.3	2.4

Source: Appendix I2.

Notes: cfs = cubic feet per second

<sup>4</sup> A nutrient separating baffle box is an advanced vault treatment system for storm water runoff. Its patented screen system is designed to capture and store debris in a dry state to minimize nutrient leaching and allow for easy servicing.

## 5. Environmental Analysis

### HYDROLOGY AND WATER QUALITY

Proposed development would also implement source control measures to prevent pollutants from contacting stormwater runoff and prevent discharge of contaminated stormwater runoff to the storm drain system and/or receiving waters by providing physical separation of areas or careful management of activities that are sources of pollutants. The proposed source control measures include:

- Storm drain message and signage
- Outdoor trash storage/waste area
- Outdoor loading/unloading dock area
- Landscape irrigation practices

Additionally, LACDPW's Low Impact Development Standards Manual requires all projects in natural drainage systems that have not been improved (e.g., channelized or armored with concrete, shotcrete, or rip-rap) or drainage systems that are tributary to a natural drainage system to implement hydromodification controls. The project must fully mitigate off-site drainage impacts caused by hydromodification and changes in water quality, flow velocity, flow volume, and depth/width of flow. Since the proposed development would connect directly to the San Gabriel River, which is a County-engineered and -maintained facility, hydromodification impacts to natural streams would not occur, and hydromodification control measures are not required.

Since the proposed project could include light industrial and manufacturing uses, some uses may require an NPDES pursuant to the Statewide General Permit for Stormwater Discharges Associated with Industrial Activities (Order No. 2014-0057-DWQ as amended by 2015-0122-DWQ). Dischargers would be required to eliminate nonstorm water discharges, develop SWPPPs that include BMPs, conduct monitoring of stormwater runoff, and submit all compliance documents via the SWRCB's SMARTS program.

Pursuant to the State CGP, the MS4 Permit, the Statewide General Permit for Stormwater Discharges Associated with Industrial Activities, Chapter 8.28 of the City's municipal code, and requirements of Sections 404 and 401 of the CWA, the Specific Plan would be required to implement federal, State, and local water quality standards; construction phase BMPs; post-construction site design, treatment, and source control measures to help keep pollutants out of stormwater. With implementation of these measures and regulatory provisions to limit runoff, the Specific Plan would result in less than significant impact.

***Level of Significance Before Mitigation:*** Less than significant.

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**Impact 5.8-2: Construction and operation of the development accommodated by the Specific Plan would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Specific Plan may impede sustainable groundwater management of the basin. [Threshold HYD-2]**

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#### Construction

The Specific Plan would allow for the development of three industrial buildings under Option 1, and two industrial buildings with a BESS under Option 2, with all associated access, circulation, infrastructure, and hardscape/landscape improvements. Historically high groundwater has been estimated to range between depths of 72 to 75 feet below ground surface (see Appendix G1). Therefore, groundwater would not be encountered

## 5. Environmental Analysis HYDROLOGY AND WATER QUALITY

during excavation, and dewatering is not required. Construction of development accommodated by the Specific Plan would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Impacts to groundwater supplies during construction would be less than significant.

### Operation

The planning area is in the Valley County Water District (VCWD) water service area. VCWD's primary water supply source is groundwater pumped from seven active wells in the Main Basin. VCWD can also purchase treated imported water from Covina Irrigating Company and the Metropolitan Water Company. VCWD's annual water supplies over the past 20 years—from Fiscal Year (FY) 2002-03 to FY 2021-22—have ranged from 6,374 acre-feet per year (AFY) to 11,744 AFY, with an average production of approximately 8,116 AFY. VCWD's historical groundwater production from the Main Basin for the same period ranged from 3,019 AFY to 9,552 AFY, with an average of approximately 7,446 AFY.

The Water Supply Assessment for the Specific Plan (see Appendix M3) demonstrates that the combined capacities from VCWD's sources of supply would provide sufficient water supply for VCWD's projected water demand, including development pursuant to the Specific Plan, under future normal, single dry, and multiple (five consecutive) dry year scenarios, from FY 2024-25 through FY 2044-45. Water supply is discussed and analyzed in detail in Section 5.15, *Utilities and Service Systems*.

Furthermore, the planning area is not an active groundwater recharge site and therefore would not substantially interfere with groundwater recharge. Therefore, operation of the development accommodated by the Specific Plan would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin, and impacts on would be less than significant.

***Level of Significance Before Mitigation:*** Less than significant.

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**Impact 5.8-3:** **Construction and/or operation of the development accommodated by the Specific Plan would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in a substantial erosion or siltation on- or off-site, flooding on- or offsite, or create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. [Threshold HYD-3(i), (ii) and (iii)]**

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The project site is in a highly urbanized, built-out portion of Irwindale where soil has already been disturbed. No streams or rivers traverse the project site. Soils could experience erosion during construction pursuant to the Specific Plan. A SWPPP specifying BMPs for minimizing pollution of stormwater with soil and sediment during construction would be prepared and implemented. Adherence to the BMPs in the SWPPP and preparation of erosion control plans would reduce, prevent, or minimize soil erosion from grading and construction activities. Therefore, impacts related to substantial soil erosion or siltation during construction would be less than significant.

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Buildout of the Specific Plan would increase impervious areas on the project site. Per the requirements of the LACDPW, as detailed in the Los Angeles County Hydrology Manual and the Los Angeles County Hydraulic Design Manual, development under the proposed project would be required to have site-specific hydrology and hydraulic studies to determine the capacity of the existing storm drain systems and project impacts on such systems prior to approval by the LACDPW. The analysis in the Preliminary Hydrology Report (see Appendix I1), pursuant to the requirements of LACDPW, represents the hydrology and hydraulic analysis for Option 1. The proposed Option 1 contains a larger impervious area than Option 2 since the BESS site is anticipated to have a similar drainage pattern and would not have greater amount of impervious surface. Therefore, the analysis in the Preliminary Hydrology Report is conservative.

LACDPW requires that the proposed basin regulates peak flows from the 50-Year 24-Hour storm event so that the post-development runoff does not exceed 1 cfs/acre. The project site, as analyzed in the Preliminary Hydrology Report, is 66.9 acres, so the allowable maximum peak runoff flow is 66.9 cfs.<sup>5</sup> The 50-Year 24-Hour post-development flow for the Specific Plan development is 12 cfs. Additionally, the proposed storm drain on Live Oak Avenue (Line E) would have a design capacity of 45.3 cfs and would convey runoff from the project site in addition to drainage area A4. Drainage area A4 would have a peak flow rate of 27.96 cfs for the 50-Year 24-Hr storm event. Therefore, Line E would receive a total of 39.96 cfs and would be adequately designed to convey this flow.

With the implementation of the on-site detention basin, drywells, and the modular wetlands systems, the Specific Plan would not substantially increase the rate or amount of surface runoff in a manner that would result in on- or off-site flooding or create stormwater runoff that would exceed the capacity of the storm drain system. The calculated stormwater runoff volume for 50-Year 24-Hour storm event under post-development conditions can be accommodated by the on-site storm drain system.

Additionally, development in accordance with the proposed project must be operated in accordance with the MS4 Permit (Order No. R4-2021-0105, NPDES No. CAS004004) and Chapter 8.28 of the Irwindale municipal code. The MS4 Permit requires new development to retain and treat a specified volume of stormwater runoff on-site, as described in Impact 5.8-1.

Therefore, development pursuant to the Specific Plan would not be anticipated to cause substantial erosion or siltation on- or off-site or substantial flooding on- or off-site. Development would also not be anticipated to create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage system. Therefore, impacts would be less than significant.

***Significance After Mitigation:*** Less than significant impact.

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<sup>5</sup> The project site is 66.64 acres, so the analysis in the Preliminary Hydrology Report is conservative.

## 5. Environmental Analysis HYDROLOGY AND WATER QUALITY

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**Impact 5.8-4: Construction and/or operation of the development accommodated by the Specific Plan would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows or risk release of pollutants due to project inundation. [Threshold HYD-3 (iv) and HYD-4]**

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The planning area is not in a 100-year or 500-year floodplain, is not within an area with flood risk due to levees, and is not at risk of flooding from tsunamis. Portions of the western part of the project site are within the San Gabriel No.1 dam inundation area (see Figure 5.8-2), but no structures are proposed in this area.

The entire site is in the Santa Fe Dam inundation area. The Santa Fe Dam is a flood control structure on the San Gabriel River in the City of Irwindale. The dam is owned and operated by the USACE (USACE 2023). The City of Irwindale has never been impacted by dam failure due to the Santa Fe Dam (Irwindale 2012).

Dams in California are monitored and inspected annually by the DSOD. In addition, dam owners are required to maintain Emergency Action Plans (EAP) that include procedures for damage assessment and emergency warnings. An EAP identifies potential emergency conditions at a dam and specifies preplanned actions to help minimize property damage and loss of life should those conditions occur. EAPs contain procedures and information that instruct dam owners to issue early warning and notification messages to downstream emergency management authorities. Additionally, the Dam Safety Act requires dam owners to submit inundation maps for those dams whose total failure would cause loss of life or personal injury. The City periodically reviews the inundation maps for the Santa Fe Dam to ensure these issues are considered as part of ongoing planning efforts (Irwindale 2012). Therefore, no impact to flood flows is expected, and impacts would be less than significant.

*Level of Significance Before Mitigation:* Less than significant.

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**Impact 5.8-5: Construction and/or operation of development accommodated by the Specific Plan would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. [Threshold HYD-5]**

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The planning area would be connected to VCWD's public water supply. VCWD relies on groundwater from the Main Basin, which is an adjudicated basin that has been identified by DWR as a very-low-priority groundwater basin. In that regard, the basin is actively managed by the Main San Gabriel Basin Watermaster. Pursuant to the SGMA, the basin does not require a Groundwater Sustainability Plan, and the Watermaster submits annual reports to DWR. The Watermaster ensures that the basins do not exceed their safe yield.

Development accommodated by the Specific Plan would adhere to the State CGP, implement the SWPPP, and adhere to the City's stormwater management requirements, as described in detail in Impact 5.8-1, and would thereby ensure that groundwater quality is not adversely impacted during construction. No dewatering or groundwater wells are required to implement the Specific Plan, and the project site is not in an active groundwater recharge area. In addition, development pursuant to the Specific Plan would implement LID BMP measures, including drywells, baffle boxes, detention basins, and modular wetland systems, which would capture and filter water containments and would thereby ensure that water quality is not impacted during the operational

## 5. Environmental Analysis

### HYDROLOGY AND WATER QUALITY

phase of the Specific Plan. As a result, development of the planning area would not obstruct or conflict with the implementation of the Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties.

Therefore, the Specific Plan would not obstruct or conflict with groundwater management, and impacts would be less than significant.

*Level of Significance Before Mitigation:* Less than significant.

#### 5.8.5 Cumulative Impacts

##### Hydrology and Drainage

Cumulative projects in the Rio Hondo watershed could increase impervious areas and thus increase local runoff rates at those project sites. However, other projects in the region would be required to manage runoff on-site as applicable in accordance with the NPDES MS4 permit. Projects in the region would also be required to limit post-development runoff discharges per the requirements of the Los Angeles County Department of Public Works, as detailed in the Los Angeles County Hydrology Manual and the Los Angeles County Hydraulic Design Manual. Projects in the City would also need to comply with the requirements of Chapter 8.28 of the Municipal Code. Thus, no significant cumulative drainage impact would occur, and project drainage impacts would not be cumulatively considerable; impacts would be less than significant.

##### Water Quality

Cumulative projects have the potential to generate pollutants during project construction and operation. All construction projects that disturb one acre or more of land would be required to prepare and implement SWPPPs to obtain coverage under the Statewide CGP.

All designated projects within the watershed would also be required to implement LID BMPs pursuant to the MS4 permit that would be applied during project design and project operation to minimize water pollution from project operation. Additionally, industrial uses would need to comply with the Statewide General Permit for Stormwater Discharges Associated with Industrial Activities, and any project that may dredge or fill waters of the United States would need to comply with the requirements of Sections 404 and 401. The requirements of Chapter 8.28 of the City's municipal code would further keep pollutants out of stormwater. Thus, no significant cumulative water quality impacts would occur, and the Specific Plan's water quality impacts would not be cumulatively considerable.

#### 5.8.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.8-1 through 5.8-5.

#### 5.8.7 Mitigation Measures

No mitigation measures required.

## 5. Environmental Analysis HYDROLOGY AND WATER QUALITY

### 5.8.8 Level of Significance After Mitigation

Impacts 5.8-1 through 5.8-5 are less than significant.

### 5.8.9 References

- Arroyo Seco Foundation. 2023, February 25 (accessed). The Rio Hondo Watershed. <https://www.arroyoseco.org/riohondowatershed.htm>.
- California Department of Conservation (DOC). 2022. CGS Information Warehouse: Tsunami Hazard Area Map. <https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps>.
- California Department of Water Resources (DWR). 2023a, February 25 (accessed). SGMA Data Viewer. <https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#boundaries>.
- . 2023b, February 25 (accessed). Dam Breach Inundation Map. Web Publisher. [https://fmds.water.ca.gov/webgis/?appid=dam\\_prototype\\_v2](https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2).
- Division of Safety of Dams (DSOD). 2022, September. Dams within Jurisdiction of the State of California. <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/All-Programs/Division-of-Safety-of-Dams/Files/Publications/Dams-Within-Jurisdiction-of-the-State-of-California-Listed-Alphabetically-by-Name-September-2022.pdf>.
- Federal Emergency Management Agency (FEMA). September 2020. National Flood Hazard Layer. FIRMette 06037C1700F. <https://msc.fema.gov/portal/firmette?latitude=34.10901800920675&longitude=-117.97513196150544>.
- Irwindale, City of. 2008, June. General Plan Update. <https://www.irwindaleca.gov/DocumentCenter/View/38/General-Plan?bidId=>.
- . 2012, November 20. City of Irwindale 2012 Hazard Mitigation Plan. Prepared by Emergency Planning Consultants. <https://www.irwindaleca.gov/DocumentCenter/View/50/Irwindale-Hazmit-Plan-11-20-12---Website?bidId=>.
- State Water Resources Control Board (SWRCB). 2022. 2020-2022 Integrated Report for Clean Water Act 303(d) List and 305(b) Report. [https://www.waterboards.ca.gov/water\\_issues/programs/tmdl/2020\\_2022state\\_ir\\_reports\\_revised\\_final/apx-a-303d-list.xlsx](https://www.waterboards.ca.gov/water_issues/programs/tmdl/2020_2022state_ir_reports_revised_final/apx-a-303d-list.xlsx).
- United States Army Corps of Engineers (USACE). 2023, February 25 (accessed). Santa Fe Dam. <https://www.spl.usace.army.mil/Missions/Asset-Management/Santa-Fe-Dam/>.

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## 5. Environmental Analysis

### 5.9 LAND USE AND PLANNING

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts to land use in the City of Irwindale from implementation of the Irwindale Gateway Specific Plan project (proposed project).

Land use impacts can be either direct or indirect. Direct impacts are those that result in land use incompatibilities, division of neighborhoods or communities, or interference with other land use plans, including habitat or wildlife conservation plans. This section focuses on direct land use impacts. Indirect impacts are secondary effects resulting from land use policy implementation, such as an increase in demand for public utilities or services, or increased traffic on roadways. Indirect impacts are addressed in other sections of this DEIR.

#### 5.9.1 Environmental Setting

##### 5.9.1.1 REGULATORY AND PLANNING FRAMEWORK

###### Regional

###### *Southern California Association of Governments*

The Southern California Association of Governments (SCAG) is the Metropolitan Planning Organization representing six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial Counties. The region encompasses more than 38,000 square miles and had a 2020 population exceeding 19 million persons. SCAG addresses regional issues concerning transportation, the economy, community development, and the environment. It is also the regional clearinghouse for projects requiring federal and state law environmental documentation. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the Southern California region's metropolitan planning organization, SCAG cooperates with the Southern California Air Quality Management District (AQMD), the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives.

###### *Regional Transportation Plan / Sustainable Communities Strategy*

The SCAG Regional Council adopted Connect SoCal (its 2020-2045 RTP/SCS) in September 2020 to replace the 2020-2045 RTP/SCS. The RTP/SCS helps coordinate the development of the region's transportation improvements and provides a vision for transportation investments throughout the region. Using growth forecasts and economic trends that project out over 20 years, the RTP/SCS considers the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address regional mobility needs. Connect SoCal builds upon and expands land use and transportation strategies of previous RTPs/SCSs, increases mobility options, and achieves a more sustainable growth pattern in the region. The RTP/SCS is a long-range visioning plan that balances mobility and housing and goals for the environment, economy, equity, environmental justice, and public health that is developed and updated by SCAG every four years. Connect SoCal identifies ten goals to achieve its long-range vision. Goals relevant to the proposed project are discussed in Table 5.10-1, Section 5.10.3.2, *Impact Analysis*.

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### LAND USE AND PLANNING

#### Local

##### *City of Irwindale General Plan*

The Irwindale General Plan provides a source of information and a policy framework for future planning and development in the City and through appropriate goals, policies and programs serves as a decision-making tool to guide growth and development. The 2020 Irwindale General Plan was adopted in 2008 and consists of a series of state-mandated and optional elements to direct the City's physical, social, and economic growth. The City is currently updating the General Plan. Elements within the City of Irwindale General Plan include: Community Development, Housing, Infrastructure, Resource Management, Public Safety, and Implementation. Following is a discussion of the various elements. The Housing and Safety Elements are currently being updated, and the new Environmental Justice Element is being added.

The policies in each of the elements that are relevant to the proposed project are listed in Table 5.10-2, *City of Irwindale General Plan Consistency Analysis*, which analyzes the proposed project's consistency with these policies.

##### *Community Development Element*

The Community Development Element (CDE) complies with the State requirements for a land use element, and covers issues related to urban design and economic development. The CDE designates the general distribution and intensity of land use and development contemplated within the land area governed by the General Plan.

##### *Housing Element*

The Housing Element (HE) of the City of Irwindale General Plan was adopted by the Irwindale City Council on September 11, 2013, and covers the planning period spanning from October 2013 to October 2021. The City is in the process of updating the Housing Element for the 2021-2029 period cycle (6th cycle). The HE identifies plans and programs for the rehabilitation of existing housing and the development of new housing to accommodate future demand. Specific components of the HE, which are also requirements of State law, include an assessment of housing needs and an inventory of resources and constraints relevant to the meeting of those needs; a statement of the community's goals, quantified objectives, and policies relative to the maintenance, improvement, and development of housing; and a program that establishes an eight-year schedule of actions the community intends to implement as a means to achieve the goals and objectives of the housing element. The primary goal of the HE is to promote the development of new housing to meet the existing and projected demand while preserving the existing residential neighborhoods in the city.

##### *Infrastructure Element*

The City of Irwindale Infrastructure Element (IE) complies with the State requirements for a circulation element. The IE identifies and describes the City's existing and proposed transportation network, including applicable levels of service for key roadway segments and intersections in the City. The IE promotes the maintenance of a safe and efficient circulation system for the City. A primary purpose of the IE is to provide for the maintenance of the City's transportation network in order to support the buildout of the General Plan land use plan.

## 5. Environmental Analysis LAND USE AND PLANNING

### ***Resource Management Element***

The Resource Management Element (RME) meets the State's requirements for an open space element and conservation element. The RME establishes the long-range vision for the preservation and conservation of the City's remaining open space resources and programs that will aid in preventing their loss and wasteful exploitation. The RME focuses on four key issue areas: cultural resources, ecological resources, natural resources, and open space resources used for recreation. Additionally, the RME includes a Resource Management Plan that establishes policies and programs related to the preservation of important natural and man-made resources within the City. The RME also discusses the development of reclamation plans in compliance with the State of California Surface Mining and Reclamation Act of 1975, which gives the City the authority to require quarry owners to reclaim/rehabilitate their land once mining operations have been completed. As discussed throughout this EIR, mining operations at the project site have been completed, and reclamation of the project site is ongoing in accordance with existing regulations under the Surface Mining and Reclamation Act and in the City's municipal code to allow for future development of the site.

### ***Public Safety Element***

The objective of the state-mandated Public Safety Element (PSE) is to assist in the mitigation and reduction of natural and man-made hazards to life, health, and property and to ensure that emergency services in the city are adequate to meet the city's needs during minor emergencies and major catastrophic situations. The PSE's scope also addresses noise and air quality. Policies in the PSE pertain to the areas of seismic and geologic hazards, fire hazards, flooding hazards, crime, and civil disaster preparedness. This element is currently being updated.

### ***Implementation Element***

The Implementation Element (IE) serves as a guide for implementation of the General Plan and lists the specific implementation programs that are included in the other Irwindale General Plan elements. This includes but is not limited to policies pertaining to: air quality planning, building code review, cultural resources management, design guidelines, energy conservation, environmental review, fire prevention, hazardous materials, recreational facilities, and transportation-related issues.

### ***Environmental Justice***

The City is currently in the process of updating its Environmental Justice Element in association with the Housing Element and Safety Element updates. The inclusion of environmental justice in land use planning is required under SB 1000 which mandates that cities and counties adopt an Environmental Justice Element or integrate environmental policies into other elements of the General Plan when two or more elements are being updated. In the existing General Plan, Resource Management Element Policy 19 states the City will consider environmental justice issues with respect to land use decisions.

### ***City of Irwindale Zoning Code***

The City of Irwindale Zoning Code is in Title 17 of the City of Irwindale Municipal Code. The zoning code is a regulatory document that establishes specific standards for the use and development of all properties within the City by regulating development intensity, including limits on building setbacks, landscaping standards, and

## 5. Environmental Analysis

### LAND USE AND PLANNING

building heights. The zoning code also defines the permitted land uses in the various zones. The project site is currently zoned M-2 (Heavy Manufacturing). Chapter 17.56, M-2 (Heavy Manufacturing), of the municipal code describes all permitted and conditional uses and uses subject to a Development Agreement. Chapter 17.56 also includes development and performance standards. The current municipal code is structured as a tiered system; uses allowed in less intense zones, such as the M-1 (Light Manufacturing) and the commercial zones would also be allowed in the M-2 (Heavy Manufacturing) zone. Conditionally permitted uses in the M-1 (Light Manufacturing) zone or less intense zones would also be subject to a Conditional Use Permit in the M-2 (Heavy Manufacturing) zone. The zoning code is currently undergoing a comprehensive update, which will include provisions for hazards and hazardous materials handling (Irwindale 2018).

#### 5.9.1.2 EXISTING CONDITIONS

##### Project Site

The project site was previously operated as a sand and gravel quarry and subsequently an inert waste landfill, and implementation of the proposed project represents the end use that would result from reclamation of the project site. Mining operations on the project site commenced in the 1950s and ceased in approximately 1973, with the depleted quarry extending to a depth of approximately 120 feet below ground surface. The Nu-Way Live Oak Inert Landfill operated from approximately 1996 to 2005, during which time the site of the former quarry was backfilled with inert materials to capacity at street level. However, a geotechnical report conducted in 2010 concluded that the inert fill was not properly compacted (Irvine Geotechnical 2010). Under existing conditions, the property is under an active reclamation process involving an Operations Plan, in which improper fill is excavated, processed, and recompacted. The Operations Plan is permitted by City of Irwindale Grading Permit No. 05062206150001, issued on October 27, 2022, which allows for reclamation of the project site through the placement of approximately 8.3 million cubic yards of fill material.

Before construction activities for the proposed project can commence, all grading activities associated with Grading Permit No. 05062206150001 will need to have been completed on the portion of the project site planned for construction. Project-related construction activities could not feasibly commence on any portion of the site until reclamation activities on that part of the site have completed rough-graded level pads that are suitable for development with an end use. Only limited (i.e., “precise”) grading will be required as part of the proposed project evaluated by this EIR. The environmental baseline for purposes of this EIR is set at the NOP issuance date of February 10, 2023, but this EIR recognizes that the property is, and will continue for some time, to be in a state of physical change associated with mine reclamation activities.

A majority of the project site is undergoing reclamation process. As depicted on Figure 3-3, with the exception of the northern portion and SCE easement of the project site, the entire project site is disturbed by the Operations Plan. Vehicles enter and exit the site at a gated driveway in the northern part of the project site at Live Oak Lane. A temporary office trailer is staged near the Live Oak Lane entrance. Temporary movable structures (portable toilets, sunshades, etc.) are installed throughout the project site. Employee parking areas will move based on operational locations but are generally near the Live Oak Lane entrance. Shaker plates are at the end of unpaved site roads to minimize fugitive dust and tracking of soil onto public roads. There is currently crushing of old material that was left on the northern-central portion of the project site from the

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previous owner. Furthermore, there are two vacant one-story metal buildings on the north end of the project site. An existing retention basin covers the SCE easement on the western portion of the project site. Pole-mounted overhead power lines also run along the northern and southern project site boundary. Ornamental trees grow along the project site's frontage with Live Oak Avenue and the eastern portion of Live Oak Lane.

### Surrounding Land Uses

Surrounding land uses directly adjacent to the project site include commercial and industrial businesses to the north and east along Live Oak Lane, a Southern California Edison Rio Hondo Substation and staging area to the south across Live Oak Avenue, the Industrial Speedway motorsports facility to the southwest across I-605, and an industrial business park (under construction) for the Park at Live Oak Specific Plan to the west across I-605 (see Figure 3-3).

Further north across Arrow Highway are the Kare Youth League sports and recreation facility and the Santa Fe Flood Control Basin owned by the United States Army Corps of Engineers. Further east past the industrial and commercial business are the San Gabriel River and San Gabriel River Trail.

### Existing General Plan and Zoning Designations

The project site has a General Plan land use designation of Regional Commercial (RC) and is currently zoned M-2 (Heavy Manufacturing). The RC land use designation encourages a mix of commercial, office professional, and light manufacturing uses along a number of high-visibility traffic corridors. The RC land use designation does not have a compatible zoning district, and therefore, development in accordance with the RC designation would require a Zone Change and Zone Ordinance Amendment to create this new district. The M-2 (Heavy Manufacturing) zone allows for any use permitted in the M-1 (Light Manufacturing) zone as well as manufacturing of certain products that include but are not limited to horn products, lamp black, oil cloth or linoleum, plumbing supply, and roofing material.

Arrow Highway (fronts a portion of the northerly project site boundary) is designated as a Secondary Highway (80-foot right-of-way [ROW]) and Live Oak Avenue (fronts the southerly project site boundary) is designated as a Major Highway (100-foot ROW). Exhibit 4-1 of the City's Implementation Element depicts the designated truck routes in the city and indicates Arrow Highway and Live Oak Avenue are both designated truck routes.

### 5.9.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- LU-1      Physically divide an established community.
- LU-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.

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### 5.9.3 Applicable Specific Plan Development Standards and Design Guidelines

The proposed Irwindale Gateway Specific Plan is intended as a comprehensive plan “establishing regulations, conditions and programs for guiding the systematic development” of the project site. The Specific Plan encompasses the development standards and design guidelines that would otherwise be detailed pursuant to the City’s General Plan designation and zoning applicable to the project side. The Specific Plan is intended to implement the overall project objectives as listed in the Specific Plan (Section 2.3) and referenced in the DEIR Project Description as Section 3.2, *Project Objectives*. A full copy of the Specific Plan is included as Appendix B of this Draft EIR.

#### 5.9.3.1 DEVELOPMENT STANDARDS

The land use provisions are in Chapter 6 of Irwindale Gateway Specific Plan. Table 6-1, Allowable Uses, details allowable, conditional, ancillary, and prohibited land uses for Planning Area 1 and Planning Area 2. Specific Plan development standards for industrial and business park sites are detailed in Table 6-2 and development standards for the BESS are provided in Table 6-3. These tables describe site requirements, including lot size, setbacks, building heights, and parking and height requirements.

#### 5.9.3.2 DESIGN GUIDELINES

Chapter 7 of the Irwindale Gateway Specific Plan provides design guidelines to “establish the quality and character of the built environment for the master-planned development.” This chapter of the Specific Plan addresses: site planning, building architecture (including form, materials, windows/doors), and landscape architecture (including palette, entry statements and streetscape treatment).

### 5.9.4 Environmental Impacts

The following impact analysis addresses thresholds of significance that are considered potentially significant impacts.

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**Impact 5.9-1: Project implementation would not divide an established community. [Threshold LU-1]**

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#### Option 1

A majority of the project site is currently disturbed by remedial grading operations under the Operations Plan. Surrounding land uses include industrial and commercial uses, mining uses, utility-related facilities, and the Irwindale Speedway. The proposed land uses authorized by the Specific Plan are consistent with land uses currently operating on adjacent properties. The proposed project would not introduce any roadways or infrastructure that would bisect or transect the existing land uses. The project site contains no permanent structures and would not require removal of any existing residences or businesses. The closest established residential community to the project site is the residential neighborhood approximately 0.4 mile southeast of the project site in the City of Baldwin Park and the residential neighborhood approximately 0.8 mile northwest of the project site in unincorporated Los Angeles County. There are no community facilities servicing these neighborhoods that are separated from these neighborhoods by the project site. Furthermore, the project site

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was previously a quarry and inert landfill and currently operates under an Operations Plan and does not provide access to established communities. Therefore, development of the project site in accordance with the proposed Irwindale Gateway Specific Plan would have no potential to divide any existing established communities. Impacts would be less than significant.

### Option 2

Option 2 of the proposed project would incur a less than significant impact for the same reasons as Option 1.

*Level of Significance Before Mitigation:* Impact 5.9-1 would be less than significant.

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**Impact 5.9-2: Project implementation would not conflict with applicable plans adopted for the purpose of avoiding or mitigating an environmental effect. [Threshold LU-2]**

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The land use plans, policies, and regulations applicable to the proposed project and evaluated herein include those listed, each of which is discussed in more detail. The impact analyses applies to both options of the proposed project.

- SCAG 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy
- City of Irwindale General Plan
- City of Irwindale Zoning Code

### SCAG 2020-2045 RTP/SCS Consistency

Table 5.9-1, *SCAG 2020-2045 RTP/SCS Goals Consistency Analysis*, provides an assessment of the proposed project's relationship to pertinent SCAG 2020-2045 RTP/SCS goals.

**Table 5.9-1 SCAG 2020-2045 RTP/SCS Goals Consistency Analysis**

Goals	Consistency Analysis
<b>Goal 1.</b> Encourage regional economic prosperity and global competitiveness.	<b>Consistent.</b> The proposed project would implement the proposed Irwindale Gateway Specific Plan by revitalizing the project site with a light industrial development and/or BESS that contributes to the City's economic base.
<b>Goal 2.</b> Improve mobility, accessibility, reliability, and travel safety for people and goods.	<b>Consistent.</b> The project site would be directly accessible from I-605 via Arrow Highway along the northern project site boundary and Live Oak Avenue along the southern project site boundary. I-605 is an auxiliary interstate highway in the Greater Los Angeles area, stretching from Seal Beach to the I-210 in Duarte. The proposed project would provide sufficient parking to meet the needs of the proposed project and existing and future uses in the area. The proposed project would also include an integrated sidewalk network within the project site and sidewalk improvements along Live Oak Lane, Live Oak Avenue, and Arrow Highway that would encourage pedestrian circulation. These features would provide safe and reliable accessibility and mobility for people and goods to and within the project site.

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### LAND USE AND PLANNING

**Table 5.9-1 SCAG 2020-2045 RTP/SCS Goals Consistency Analysis**

Goals	Consistency Analysis
<p><b>Goal 3.</b> Enhance the preservation, security, and resilience of the regional transportation system.</p>	<p><b>Not Applicable.</b> The proposed project is not a transportation project and would not have a direct impact on the preservation and sustainability of the regional transportation system. Proposed roadway improvements within the project site would be consistent with the General Plan’s Infrastructure Element and the City of Irwindale’s Active Transportation Plan.</p>
<p><b>Goal 4.</b> Increase person and goods movement and travel choices within the transportation system.</p>	<p><b>Consistent.</b> See response to Goal 5.</p>
<p><b>Goal 5.</b> Reduce greenhouse gas emissions and improve air quality.</p>	<p><b>Consistent:</b> As discussed in Section 5.2, <i>Air Quality</i>, the proposed project would result in a significant and unavoidable impact related to air pollutant emissions. Additionally, as discussed in Section 5.6, <i>Greenhouse Gas Emissions</i>, while the proposed project would result in a significant and unavoidable impact related to GHG emissions, based on a bright-line threshold of 3,000 MTCO<sub>2</sub>e/yr, the proposed project would be consistent with regulatory schemes and policies adopted to reduce GHG emissions and includes project features that would encourage alternative transportation (such as walking) that would reduce GHG emissions. Furthermore, as discussed in Section 5.13, <i>Transportation</i>, the proposed project would include an integrated pedestrian network within the project site and sidewalk improvements along Live Oak Lane, Live Oak Avenue, and Arrow Highway that would encourage pedestrian mobility. The proposed project would also include installation of a bus stop for Foothill Transit Line 492 on Live Oak Avenue and Live Oak Lane and pay a fair-share cost for connection to the San Gabriel River Trail across the frontage of the project site as mitigation measures that could reduce VMT and increase pedestrian mobility. Implementation of the BESS under Option 2, in particular, would assist in achieving regional goals with the increased use of renewable energy and associated GHG reduction.</p>
<p><b>Goal 6.</b> Support healthy and equitable communities.</p>	<p><b>Consistent.</b> See response to Goal 5.</p>
<p><b>Goal 7.</b> Adapt to a changing climate and support an integrated regional development pattern and transportation network.</p>	<p><b>Consistent.</b> The proposed project would be required to comply with CALGreen, as adopted and amended by the City of Irwindale, and with California Building Energy Efficiency Standards. Compliance with these standards would ensure that the Irwindale Gateway Specific Plan provides an energy-efficient development. Also, the Specific Plan’s proposed sidewalk network throughout the project site encourages active mobility. Furthermore, the proposed project would not impact proposed new bicycle facilities along Arrow Highway and Live Oak Avenue, which are Bicycle Priority Corridors in the City’s Active Transportation Plan.</p>
<p><b>Goal 8.</b> Leverage new transportation technologies and data-driven solutions that result in more efficient travel.</p>	<p><b>Not Applicable.</b> This is not a project-specific goal and is therefore not applicable.</p>
<p><b>Goal 9.</b> Encourage development of diverse housing types in areas that are supported by multiple transportation options.</p>	<p><b>Not Applicable.</b> The proposed project is surrounded by commercial and industrial uses and does not propose new housing development.</p>
<p><b>Goal 10.</b> Promote conservation of natural and agricultural lands and restoration of habitats.</p>	<p><b>Not Applicable.</b> The project site is in an urban area concentrated with light industrial and commercial uses. The proposed project would not affect natural and agricultural lands or habitats. Also see Chapter 8, <i>Impacts Found Not to Be Significant</i>.</p>

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City of Irwindale General Plan

Table 5.9-2, *General Plan Consistency Analysis*, reviews the proposed Irwindale Gateway Specific Plan’s consistency with the City’s General Plan to confirm whether the proposed project would conflict with applicable General Plan goals or policies adopted to mitigate environmental effects.

**Table 5.9-2 General Plan Consistency Analysis**

Relevant Issue Areas and Policies	Consistency Analysis
<b>COMMUNITY DEVELOPMENT ELEMENT (CDE)</b>	
<b>Issue Area: Land Use Planning.</b> The City of Irwindale is committed to the development of a comprehensive land use plan that will enhance the City’s livability and economic base for future generations.	
<b>CDE Policy 1.</b> The City of Irwindale, through continued comprehensive land use planning, will strive to preserve the overall mix of land uses and development in the community.	<b>Consistent.</b> The Irwindale Gateway Specific Plan provides an industrial business park that capitalizes on the property’s location north of Live Oak Avenue, south of Arrow Highway, and east of I-605 and its on- and off-ramps. The proposed project would complement existing and planned surrounding land uses in Irwindale and adjacent cities. The proposed project is in an area of Irwindale that is already developed as an industrial/commercial area containing quarries, landfills, distribution warehousing, e-commerce, and light industrial land uses. Future land uses in the Irwindale Gateway Specific Plan would be separated from the surrounding land uses to the north by Arrow Highway and Live Oak Lane, to the south by Live Oak Avenue, to the west by I-605, to the east by Live Oak Lane, and by proposed landscaping on the frontage of the project site abutting Live Oak Lane. To the south, properties across from Live Oak Avenue are already developed with the Southern California Edison Rio Hondo substation, which would be a compatible land use with those proposed by the Specific Plan. To the west, across from I-605 are industrial warehouse buildings and the site of the Park at Live Oak Specific Plan. To the north and east, across from Live Oak Lane are light industrial buildings. Accordingly, the proposed project would be consistent with this policy.
<b>CDE Policy 2.</b> The City of Irwindale will continue to plan for the transition of the quarries located within the City to other land uses.	<b>Consistent.</b> The project site is a former sand and gravel quarry and inert materials landfill that is undergoing remedial grading in conformance with an adopted Operations Plan approved by the City. The proposed project would develop the project site with revenue- and employment-generating uses that would transition the site to productive economic use upon completion of remediation activities. Accordingly, the proposed project would be consistent with this policy.
<b>CDE Policy 3.</b> The City of Irwindale will continue to ensure that the type, location, and intensity of all new development and intensified developments adhere to the requirements that are specified for their particular land use category in the General Plan.	<b>Consistent.</b> Under existing conditions, the City of Irwindale General Plan designates the entire project site for “Regional Commercial” land uses. The General Plan states that the Regional Commercial designation “. . . encourages a balanced mix of commercial, office professional, and light manufacturing uses along a number of high visibility traffic corridors . . .” (Irwindale 2020). Implementation of the proposed Irwindale Gateway Specific Plan would provide for Industrial/Business Park land uses consistent with the General Plan’s vision for the subject property as an employment-generating and economic investment generating use. The proposed project requires a General Plan Amendment to change the site’s existing General Plan land use designations from “Regional Commercial” to “Specific Plan” to reflect the land uses, development standards, design guidelines and implementation procedures proposed in the Irwindale Gateway Specific Plan. As such, the proposed project would be consistent with this policy.

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**Table 5.9-2 General Plan Consistency Analysis**

Relevant Issue Areas and Policies	Consistency Analysis
<p><b>CDE Policy 5.</b> The City of Irwindale will continue to promote comprehensive development consistent with this General Plan as opposed to piecemeal and incremental planning.</p>	<p><b>Consistent.</b> The Specific Plan implements policies set forth in the Irwindale General Plan to provide direction for the long-term development of the Specific Plan area, addresses sustainable practices, and promotes compatibility with surrounding areas. As such, the proposed project would be consistent with this policy.</p>
<p><b>Issue Area: Economic Development.</b> The City of Irwindale intends to continue its pursuit and promotion of economic development that will provide jobs and revenue for the community.</p>	
<p><b>CDE Policy 7.</b> The City of Irwindale will continue to promote economic development through the use of redevelopment.</p> <p><b>CDE Policy 10.</b> The City of Irwindale will promote development that will benefit the community as a whole in terms of both jobs and revenue generation.</p>	<p><b>Consistent.</b> The Irwindale Gateway Specific Plan would allow for the former inert materials landfill site to be developed with an industrial business park of up to 982,796 square feet. Revenue benefits to the City of Irwindale may include but not be limited to increased property tax revenue and point-of-sale tax revenue. In addition, the proposed project would generate a substantial number of jobs that could be filled by residents of the city and surrounding communities and thereby stimulate spending in the local economy. Additionally, the industrial/business land uses proposed by the Irwindale Gateway Specific Plan would diversify the city's employment/revenue-generating land uses, which under existing conditions predominantly consist of storage-related uses. As such, the proposed project would be consistent with this policy.</p>
<p><b>Issue Area: Urban Design.</b> The City of Irwindale will continue its efforts in improving the appearance of the community.</p>	
<p><b>CDE Policy 12.</b> The City of Irwindale will continue to promote quality design in the review and approval of commercial and industrial development through the application of the commercial and industrial design guidelines.</p>	<p><b>Consistent.</b> The proposed project would develop the project site in accordance with the Design Guidelines established in Chapter 7 of the Irwindale Gateway Specific Plan, which include comprehensive architectural and landscape standards and development criteria that are compatible with the design and architecture of surrounding uses. As such, the proposed project would be consistent with this policy.</p>
<p><b>CDE Policy 14.</b> The City of Irwindale will continue to promote property maintenance in all areas of the City.</p>	<p><b>Consistent.</b> The proposed project defines the entities responsible for maintenance of the proposed publicly and privately owned improvements within the Specific Plan area, including roadways and utility infrastructure (refer to Chapter 9, Implementation, and Table 9-1, Maintenance Responsibilities, of the Irwindale Gateway Specific Plan). Compliance with Irwindale Gateway Specific Plan's maintenance program would ensure that all improvements in the Specific Plan area would be properly and perpetually maintained. As such, the proposed project would be consistent with this policy.</p>
<p><b>CDE Policy 16.</b> The City of Irwindale will continue to work towards the development of streetscape, sign standards, and a Public Art Program.</p>	<p><b>Consistent.</b> The Design Guidelines from Chapter 7 of the Irwindale Gateway Specific Plan establish comprehensive streetscape design standards for interior streets and along the project site's frontage with Arrow Highway and Live Oak Avenue. The Design Guidelines define the proposed project's design theme and are intended to create a welcoming visual environment for employees, visitors, and passersby. In addition, the Design Guidelines include signage guidelines to provide for safe and efficient circulation of vehicle traffic, facilitate pedestrian travel, and identify building occupants. A separate master sign program is required. As such, the proposed project would be consistent with this policy.</p>
<p><b>INFRASTRUCTURE ELEMENT (IE)</b></p>	
<p><b>Issue Area: Maintenance of Service Standards.</b> The City of Irwindale will continue to maintain the highest levels of public service to respond to the existing and future demand for such services.</p>	
<p><b>IE Policy 1.</b> The City will continue to support the efforts of the City of Irwindale Public Works Department in maintaining the highest service standards feasible.</p>	<p><b>Consistent.</b> The proposed project would improve roadways and public utilities/infrastructure in a logical sequence in conjunction with future development of the Irwindale Gateway Specific Plan and as required by the</p>

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**Table 5.9-2 General Plan Consistency Analysis**

Relevant Issue Areas and Policies	Consistency Analysis
<p><b>IE Policy 2.</b> The City will continue to cooperate with those utility providers in the City to ensure that sufficient infrastructure capacity is available to meet current and future service demands.</p>	<p>City of Irwindale and applicable public service providers. Improvements would be provided as necessary to serve the project site while maintaining adequate service levels for existing and surrounding land uses. Chapter 8, Utility Infrastructure Plan, of the Irwindale Gateway Specific Plan includes plans for water, sewer, stormwater, and dry utilities. As such, the proposed project would be consistent with these policies.</p>
<p><b>Issue Area: Traffic and Circulation.</b> The City of Irwindale will strive to improve safe and efficient circulation in the City.</p>	
<p><b>IE Policy 3.</b> The City of Irwindale will continue to develop and enhance the existing streets and intersections in the City.</p> <p><b>IE Policy 4.</b> The City of Irwindale will strive to ensure that all new development implements its “fair-share” of infrastructure improvements to offset the potential adverse impacts associated with the additional traffic that will be generated by the new development.</p>	<p><b>Consistent.</b> The Irwindale Gateway Specific Plan includes roadway and sidewalk/parkway improvements to facilitate efficient vehicular and nonvehicular transportation through and around the project site. Frontage improvements would occur along the proposed project’s frontages with the south side of Arrow Highway, the north side of Live Oak Avenue, and the south and west sides of Live Oak Lane. Since adoption of SB 743 in 2013, potential project impacts related to traffic congestion are no longer considered the purview of CEQA. Transportation improvements associated with mitigating traffic congestion, and GP consistency findings for CEQA purposes related to these issues are not required.</p>
<p><b>RESOURCE MANAGEMENT ELEMENT (RME)</b></p>	
<p><b>Issue Area: Natural Resources.</b> The City of Irwindale will continue to cooperate in the maintenance and conservation of the area’s natural resources.</p>	
<p><b>RME Policy 1.</b> The City of Irwindale will continue to work with the quarries and other regulatory agencies to facilitate their reclamation.</p> <p><b>RME Policy 3.</b> The City of Irwindale will work with the quarry owners and/or operators and regulatory agencies to help facilitate their timely reclamation.</p>	<p><b>Consistent.</b> The Irwindale Gateway Specific Plan provides guidelines and development standards for the redevelopment of the project site and addresses proposed development activities on the project site following reclamation of the former quarry/inert landfill site. As such, the Irwindale Gateway Specific Plan provides a comprehensive plan for the transition of the former quarry site to a productive and economically beneficial development for the City of Irwindale. Thus, the proposed project would be consistent with these policies.</p>
<p><b>Issue Area: Resource Preservation.</b> The City of Irwindale will maintain and preserve those natural and man-made amenities that contribute to the City’s livability.</p>	
<p><b>RME Policy 11.</b> The City of Irwindale supports the ethic of conservation of non-renewable resources. This includes efforts to reduce the use of energy (in any form), greenhouse gas (GHG) emissions (consistent with AB 32) and efforts to find new and more energy efficient methods for delivering services. The City supports the development of building standards that enable the community to design energy saving features such as solar energy systems, water efficient landscaping, and sustainable, green, and energy efficient building standards.</p>	<p><b>Consistent.</b> Development within the Specific Plan would be required to comply with the California Green Building Standards Code (CALGreen) and incorporate additional sustainable design features that minimize water use and maximize energy efficiency. Refer to the mitigation measures recommended in Section 5.2, <i>Air Quality</i>, and Section 5.6, <i>Greenhouse Gas Emissions</i>. Further, through redevelopment of a former quarry/inert landfill site that has been depleted of recoverable mineral resources to a productive employment-generating end use. Development of Option 2, including the BESS, would be expected to further help facilitate renewable energy within the region. The proposed project would be consistent with this policy.</p>
<p><b>Issue Area: Mining and Reclamation.</b> The following policies focus on those City policy actions that can be taken to improve environmental compliance, reclamation planning, and long-term economic improvement of the mines and quarries (inactive, active, and reclaimed) in Irwindale.</p>	
<p><b>RME Policy 19.</b> The City of Irwindale will consider environmental justice issues as they are related to potential health impact associated with air pollution and ensure that all land use decisions, including enforcement actions, are made in an equitable fashion to protect residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location from the health effects of air pollution.</p>	<p><b>Consistent.</b> The Irwindale Gateway Specific Plan provides an industrial business park that capitalizes on the property’s location north of Live Oak Avenue, south of Arrow Highway, and east of I-605 and its on- and off-ramps. The proposed project would complement existing and planned surrounding land uses in Irwindale and adjacent cities. The Irwindale Gateway Specific Plan is in an area of Irwindale that is already developed as an industrial/ commercial area, containing landfills,</p>

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**Table 5.9-2 General Plan Consistency Analysis**

Relevant Issue Areas and Policies	Consistency Analysis
	distribution warehousing, e-commerce, and light industrial land uses. The City of Irwindale has applied all feasible mitigation to the proposed Irwindale Gateway Specific Plan project to minimize air quality and related health effects. These requirements are similarly and uniformly applied to other projects in the city which could cumulatively combine to result in significant, adverse impacts.
<b>RME Policy 25.</b> The City of Irwindale will monitor traffic and congestion to determine when and where the City needs new transportation facilities to achieve increased mobility efficiency.	<b>Consistent.</b> The Irwindale Gateway Specific Plan requires roadway and sidewalk improvements for new developments to facilitate efficient vehicular and nonvehicular transportation through and around the Specific Plan area. With the implementation of the proposed signal at Live Oak Avenue proposed as part of the project, the Specific Plan would be consistent with Level of Service policies in the General Plan.
<b>PUBLIC SAFETY ELEMENT (PSE)</b>	
<b>Issue Area: Emergency Preparedness.</b> The City of Irwindale will strive to maintain the highest levels of readiness to respond to disasters or local emergencies.	
<b>PSE Policy 3.</b> The City of Irwindale will work to reduce potential hazards through conscientious land use planning. The City shall require liquefaction assessment studies as part of development proposals in areas identified by the California Geological Survey as susceptible to liquefaction. The studies shall be conducted in accordance with the California Geological Survey's Special Publication 117; Guidelines for Evaluating and Mitigating Seismic Hazards in California, and the Southern California Earthquake Centers (1999) procedures to implement Special Publication 117 – Liquefaction Hazards (both documents are incorporated herein by reference). On sites shown to be susceptible to liquefaction, the City shall require the implementation of mitigation measures designed to reduce this hazard to an acceptable level. The City shall require a State certified engineering geologist or registered civil engineer; having competence in the field of seismic hazard evaluation and mitigation, to review the study at the Applicant's expense. The review shall determine the adequacy of the hazard evaluation and proposed mitigation measures and determine whether the requirements of State law are satisfied, as described in Special Publication 117 by the California Geological Survey.	<b>Consistent.</b> As described in Section 5.5, <i>Geology and Soils</i> , the observed static groundwater level at the project site is 90 to 93 feet below the historical high groundwater level. Additionally, the project site is not in a CGS Zone of Required Investigation for liquefaction. Therefore, the project site is not considered susceptible to liquefaction. Notwithstanding, the proposed project's improvements are required to be designed and constructed in accordance with the latest applicable seismic safety guidelines, including the standard requirements of the California Building Standards Code and City of Irwindale Municipal Code. Furthermore, the proposed project would be required to comply with the site-specific grading and construction recommendations in the proposed project's geotechnical report to further reduce the risk of seismic-related ground failure due to liquefaction. Accordingly, the proposed project would be consistent with this policy.
<b>Issue Area: Noise.</b> The City of Irwindale will work to reduce the high levels of noise exposure associated with the existing development and transportation facilities in the City.	
<b>PSE Policy 5.</b> The City of Irwindale will work towards reducing noise exposure in the City by considering noise and land use compatibility in land use planning.	<b>Consistent.</b> The Irwindale Gateway Specific Plan provides an industrial business park that capitalizes on the property's location north of Live Oak Avenue, south of Arrow Highway, and east of I-605 and its on- and off-ramps. The proposed project would complement existing and planned surrounding land uses in Irwindale and adjacent cities. The Irwindale Gateway Specific Plan is in an area of Irwindale that is already developed as an industrial/commercial area, containing landfills, distribution warehousing, e-commerce, and light industrial land uses and does not abut noise-sensitive land uses. As described in Section 5.11, <i>Noise</i> , noise generated by project construction activities would result in a less-than-significant increase in ambient noise levels. During long-term operation of the proposed project, the proposed project would not expose persons to or generate noise levels in excess of local standards and would not result in a substantial permanent increase in

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**Table 5.9-2 General Plan Consistency Analysis**

Relevant Issue Areas and Policies	Consistency Analysis
	ambient noise levels in the project vicinity above levels existing without the proposed project. Additionally, under long-term operation, project-related traffic would not expose persons to or generate noise levels in excess of local standards and would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the proposed project. Accordingly, the proposed project would be consistent with this policy.

**City of Irwindale Zoning Code**

The City of Irwindale Zoning Code is in Title 17 of the Irwindale Municipal Code and establishes specific standards for the use and development of all properties in the city by regulating land uses and development intensity, including limits on building setbacks, landscaping standards, and building heights. As discussed in Chapter 3, *Project Description*, the zoning designations applicable to the project site under existing conditions include M-2 (Heavy Manufacturing). The project proposes to change the existing zoning designations of the project site from M-2 (Heavy Manufacturing) to “Irwindale Gateway Specific Plan,” which would be zoned for a less intensive light industrial/business park use. The application of the Irwindale Gateway Specific Plan zone would allow for the proposed project to be developed in accordance with Chapter 6, Development Standards, of the Irwindale Gateway Specific Plan, which would constitute the zoning regulations applicable to any future development on the project site. Once adopted, Chapter 6, Development Standards, of Irwindale Gateway Specific Plan, would ensure that the proposed project would be consistent with the proposed zoning regulations as identified in the zoning code. Inconsistency with the site’s existing zoning designations does not constitute a significant environmental impact, because it does not imply a physical impact to the environment. Potential environmental impacts resulting from the proposed project are discussed in their respective EIR sections. Based on the foregoing, the proposed project would have a less-than-significant impact with respect to a conflict with the City of Irwindale Zoning Code.

**Level of Significance Before Mitigation:** Less than significant.

**5.9.5 Cumulative Impacts**

A General Plan Amendment and Zone Change would be required to allow for the development of the proposed warehousing uses and BESS uses in the Specific Plan area. Development pursuant to the Specific Plan would be consistent with the applicable plans, goals, policies, and regulations of the General Plan and zoning code, as amended. Additionally, uses permitted within the Specific Plan would also be consistent with existing uses permitted on and currently operating within surrounding properties. It is reasonable to assume that the cumulative projects in the city would also implement and support local and regional planning goals and policies.

In addition, as discussed above, because the proposed project would not conflict with General Plan policies or relevant goals in other applicable plans, the Specific Plan would not incrementally contribute to cumulative inconsistencies with respect to land use plans and relevant environmental policies. Therefore, cumulative

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### LAND USE AND PLANNING

impacts regarding land use consistency would be less than significant and would not be cumulatively considerable.

#### 5.9.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, and implementation of the Development Standards and Development Guidelines of the Irwindale Gateway Specific Plan, Impacts 5.9-1 and 5.9-2 would be less than significant, and no mitigation measures would be required.

#### 5.9.7 Mitigation Measures

No mitigation measures would be required.

#### 5.9.8 Level of Significance After Mitigation

Impacts 5.9-1 and 5.9-2 would be less than significant.

#### 5.9.9 References

Irwindale, City of. 2020. City of Irwindale General Plan Update.

[https://www.irwindaleca.gov/DocumentCenter/View/38/General-Plan?bidId=.](https://www.irwindaleca.gov/DocumentCenter/View/38/General-Plan?bidId=)

Southern California Association of Governments (SCAG). 2020. Connect So Cal Plan.

[https://scag.ca.gov/post/connect-socal-plan.](https://scag.ca.gov/post/connect-socal-plan)

## 5. Environmental Analysis

### 5.10 MINERAL RESOURCES

Minerals are defined as any naturally occurring chemical elements or compounds formed from inorganic processes and organic substances. Movable minerals or an “ore deposit” is defined as a deposit of ore or mineral having a value materially in excess of the cost of developing, mining, and processing the mineral and reclaiming the area.

#### 5.10.1 Environmental Setting

##### 5.10.1.1 REGULATORY BACKGROUND

###### Federal

###### *Mining and Mineral Policy Act of 1970*

The Mining and Mineral Policy Act of 1970 is intended to promote and expand the development of a domestic mineral industry. This statute established a federal policy regarding mineral resources across the United States, covered hard rock mining and oil and gas production, and established modern federal policy regarding mineral resources. The act applies to all minerals, including aggregate (sand and gravel), coal, geothermal, and oil and gas, that are subject to federal jurisdiction, including the Bureau of Land Management and United States Forest Service.

###### State

###### *Surface Mining and Reclamation Act (SMARA)*

The SMARA of 1975 requires that the State Mining and Geology Board (SMGB) map areas throughout the State of California that contain regionally significant mineral resources. Aggregate mineral resources within the state are classified by the SMGB through application of the Mineral Resource Zone (MRZ) system. The MRZ system is used to map all mineral commodities within identified jurisdictional boundaries. The MRZ system classifies lands that contain mineral deposits and identifies the presence or absence of substantial sand and gravel deposits and crushed rock source areas (i.e., commodities used as, or in the production of, construction materials). Mining operations and mine reclamation activities are required to be performed in accordance with laws and regulations adopted by the SMGB. The State Department of Conservation’s Office of Mine Reclamation oversees reclamation requirements.

###### *Mineral Resources and Mineral Hazards Mapping Program*

The California Geological Survey (CGS) provides geologic expertise and information about California’s diverse nonfuel mineral resources. As required by the SMARA of 1975, the State Geologist classifies these resources in an effort to locate economically significant mineral deposits and potential areas of deposits based upon scientific data. Information relating to California’s nonfuel resources, naturally occurring mineral hazards, and active and historic mining activities is collected to classify land under the Mineral Resources and Mineral Hazards Mapping Program. The CGS defines several geographic areas that collectively cover a single mineral classification study as Product-Consumption (P-C) regions. The CGS identifies MRZs for each P-C region,

## 5. Environmental Analysis

### MINERAL RESOURCES

mine/quarry, or other geographic area included in a mineral classification study. Some MRZs are classified by the presence or absence of significant sand, gravel, or stone deposits that are suitable as sources of aggregate material. Construction aggregate is California's primary mineral resource.

#### *California Department of Conservation Geologic Energy Management Division*

CalGEM is responsible for monitoring the drilling, operation, maintenance, and abandonment of oil, gas, and geothermal wells with the intention of environmental protection, protecting public health and safety, and general environmental conservation. CalGEM is also responsible for collecting groundwater, oil, gas, and geothermal resource data for maintaining a record of all drilled and abandoned well locations.

#### *California State Mining and Geology Board*

The SMGB operates within the Department of Conservation. The SMGB serves as regulatory, policy, and appeals body to represent the State's interest in the reclamation of mined lands, geology, geologic and seismologic hazards, and the conservation of mineral resources.

### Local

#### *Irwindale General Plan*

The Irwindale General Plan includes policies and objectives that relate to mineral resources in the city.

- **Community Development Element Policy 2.** The City of Irwindale will continue to plan for the transition of the quarries located within the City to other land uses.
- **Resource Management Element Policy 1.** The City of Irwindale will continue to work with the quarries and other regulatory agencies to facilitate their reclamation.
- **Resource Management Element Policy 3.** The City of Irwindale will work with the quarry owners and/or operators and regulatory agencies to help facilitate their timely reclamation.

#### 5.10.1.2 EXISTING CONDITIONS

### Mineral Resources

#### *Mineral Resource Classification*

The CGS Mineral Resources Project provides information about California's nonfuel mineral resources and classifies lands throughout the state that contain regionally significant mineral resources, as mandated by SMARA. Nonfuel mineral resources include metals such as gold, silver, iron, and copper; industrial metals such as boron compounds, rare-earth elements, clays, limestone, gypsum, salt, and dimension stone; and construction aggregate, including sand, gravel, and crushed stone. Development generally results in a demand for minerals, especially construction aggregate. Urban preemption of prime deposits and conflicts between mining and other uses throughout California led to passage of SMARA, which requires all cities and counties to incorporate in their general plans the mapped designations approved by the SMGB.

## 5. Environmental Analysis MINERAL RESOURCES

The classification of mineral resources is a joint effort of state and local governments. It is based on geologic factors and requires that the State Geologist classify the mineral resources area as one of the four MRZs or an “identified resource area.”

- **MRZ-1.** An area where adequate information indicates that no significant mineral deposits are present or likely to be present.
- **MRZ-2.** An area where adequate information indicates that significant mineral deposits are present or likely present, and development should be controlled.
- **MRZ-3.** An area where the significance of mineral deposits cannot be determined from the available data.
- **MRZ-4.** An area where there is insufficient data to assign any other MRZ designation.
- **Identified Resource Area.** An area that is identified by the County or State Division of Mines and Geology where adequate production and information indicates that significant minerals are present.

As part of the classification process, an analysis of site-specific conditions is used to calculate the total volume of aggregates within individually identified resource sectors. Resource sectors are MRZ-2 areas of regional or statewide significance. The CGS separates regions of the state into P-C regions, and the anticipated aggregate demand is estimated in the P-C regions for the next 50 years and compared to the total volume of aggregate reserves identified in the P-C region. The project site is in the San Gabriel Valley P-C Region (SMGB 2014).

### *Mineral Resource Zones*

#### *Region*

According to both the 1980 and 2015 general plans for Los Angeles County, Southern California has major mineral deposits of rock, sand, and gravel, and most of the region’s on-shore oil deposits are in Los Angeles County. California is the nation’s largest producer of sand and gravel, and Los Angeles County is the nation’s leading producer for its geographic size (Los Angeles 1980, 2015a).

The primary uses for sand and gravel include Portland cement concrete aggregate (PCC), asphaltic concrete aggregate, base and sub-base aggregate, and clean fill. Sand and gravel are basic materials used for the construction of homes, commercial and industrial buildings, sewers, dams, bridges, and highways (Los Angeles 1980). According to the CGS Non-fuel Mineral Production Report, eastern parts of Los Angeles County, leading into the counties of Orange, San Bernardino, and Riverside, are relatively dense with sand and gravel mines (CGS 2023).

#### *Project Site*

The entirety of the project site is classified MRZ-2, that is, where adequate information indicates that significant mineral deposits are present or likely to be present and development should be controlled. Areas surrounding the project site are also classified MRZ-2 (Los Angeles 2015b). According to the SMGB Designation Report No. 12, the project site is designated incompatible with mining due to previous landfill operations (SMGB 2014).

## 5. Environmental Analysis

### MINERAL RESOURCES

Numerous active and inactive quarries are situated throughout Irwindale (Irwindale 2020; CDOC 2023a). The nearest active mining operations to the project site include:

- **Vulcan Durbin Quarry.** Vulcan Durbin Quarry (Mine No. 91-19-0023), about 1.3 miles south of the project site, is a 335-acre sand and gravel quarry that was originally granted mining rights by Los Angeles County in 1927. The current permitted maximum depth is 200 feet. Land use entitlements and a new reclamation plan for this quarry to modify its current entitlements and reclamation plan are currently being processed. These land use entitlements and reclamation plan would allow the continuation of mining operations until December 31, 2035, or until reaching a maximum depth of 440 feet, whichever occurs first; concurrent mining and reclamation operations; and the modification of the planned end uses that would include commercial, retail, and open space uses (Irwindale 2008).
- **Hanson Aggregates Irwindale Plant.** Hanson Aggregates Irwindale Plant (formerly Livingston Graham) (Mine No. 91-19-0025), approximately 0.6 mile southwest of the project site, is a 462-acre sand and gravel quarry. The most recent land use entitlements for this quarry, approved in 2005, allow for the continuation of mining operations until December 31, 2030, or until reaching a maximum excavation depth of 390 feet, whichever occurs first. Approved subsequent reclamations for this quarry involve a five-phase plan that would include a lake with areas dedicated to commercial/recreational uses, and several pads to be developed for commercial and light industrial uses (Irwindale 2006).
- **Peck Road Pit.** Peck Road Pit (Mine No. 91-19-0043), approximately 1.3 miles southwest of the project site, is a 78-acre sand and gravel quarry mined to 115 feet and, in the eastern portion, filled with uncompacted inert material. The 48-acre western portion of this quarry is proposed for continued mining and disposal activities. A conditional use permit granted in 2000 requires filling the pit to a depth of 200 feet. The reclamation of the portion of the pit with inert material is concurrent with ongoing mining operations.
- **United Rock Pit Site No. 3.** URP Pit Site No. 3 (Mine No. 91-19-0015), approximately 0.6 mile northwest of the project site, is a 110-acre sand and gravel quarry. The most recent land use entitlements for this quarry, approved in 2004, allow for the continuation of mining operations until December 31, 2037, or until reaching a maximum excavation depth of 440 feet, whichever occurs first. The planned end use after reclamation of the site would be a groundwater recharge basin.

The nearest inactive mining operations to the project site include:

- **United Rock Pit Site No. 2.** URP Pit Site No. 2 (Mine No. 91-19-0014), approximately 0.8 mile west of the project site, is an inactive sand and gravel quarry that is 110 acres and approximately 180 feet deep. Mining operations ended in 2020. The City is currently contemplating the acquisition of this site for the development of housing and/or a golf course (Irwindale 2004).
- **United Rock Plant Site No. 4.** URP Plant Site No. 4 (Mine No. 91-19-0012), approximately 0.1 miles northwest of the project site, is a 46-acre former quarry that is currently used for materials stockpiling and processing only (Irwindale 1990).

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### MINERAL RESOURCES

These active and inactive sites nearby are in resource sectors designated by the SMGB (1984) as containing regionally significant PCC-grade aggregate resources (SMGB 2014).

#### Oil and Natural Gas Mineral Resources

Oil and natural gas mineral resources are in areas that are suitable for the drilling and production of oil and/or natural gas. Oil production began in earnest in California in the late 1800s. Oil production occurs in many parts of Southern California and is regulated by CalGEM. CalGEM has jurisdiction over more than 242,000 wells across the state, including nearly 101,300 defined as active or idle oil producers. CalGEM's authority extends from onshore to three miles offshore. The County may regulate zoning and land use to limit impacts from surface operations on surrounding communities (Los Angeles 2015b).

The project site does not contain any oil or natural gas mineral reserves. The nearest active well is 6.6 miles southeast of the project site in the City of Industry (CDOC 2023b).

#### 5.10.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- M-1 Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- M-2 Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

#### 5.10.3 Applicable Specific Plan Development Standards and Design Guidelines

##### 5.10.3.1 DEVELOPMENT STANDARDS

There are no Specific Plan development standards pertaining to mineral resources.

##### 5.10.3.2 DESIGN GUIDELINES

There are no Specific Plan design guidelines pertaining to mineral resources.

#### 5.10.4 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Notice of Preparation disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

## 5. Environmental Analysis

### MINERAL RESOURCES

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**Impact 5.10-1: Project implementation would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. [Threshold M-1]**

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Development of the proposed project would include the construction of three light industrial buildings under Option 1 or two light industrial buildings and a BESS under Option 2. As stated above, the project site and surrounding areas are designated MRZ-2, that is, where adequate information indicates that significant mineral deposits are present or likely and development should be controlled. However, the project site is designated as an area with land uses incompatible with mining in the San Gabriel P-C region. Furthermore, there are no active mining operations on-site, and past mining operations depleted mineral resources at the project site. The nearest active mines, Hanson Aggregates Irwindale Plant Site and United Rock Pit Site No. 3, are 0.6 mile southwest and 0.6 mile northwest of the project site, respectively. Construction and operation of the proposed project would not interfere with mineral extraction operations and would not result in the loss of land designated for mineral resources. Additionally, there are no active oil or natural gas wells within or near the project site. Therefore, the proposed project would not result in an impact related to loss of availability of a known mineral resource of regional or state value, and impacts would be less than significant.

*Level of Significance Before Mitigation:* Less than significant.

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**Impact 5.10-2: Project implementation would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. [Thresholds M-2]**

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The Los Angeles County General Plan describes the project site in the Irwindale Production Area, which is defined as an MRZ-2 area (Los Angeles 2015b). However, the Irwindale General Plan lists the project site as a former quarry currently under reclamation. As mentioned in Impact 5.11-1, past mining operations depleted mineral resources at the project site, and there are no active mining or drilling operations on-site. The proposed project does not involve mining or drilling operations. The nearest mining sites are 0.6 mile from the project site, and there are no active oil or natural gas wells within or near the project site. The proposed project would not result in direct or indirect impacts related to the loss of availability of a locally important mineral resource recovery site, and impacts would be less than significant.

*Level of Significance Before Mitigation:* Less than significant.

### 5.10.5 Cumulative Impacts

Cumulative impacts refer to incremental effects of an individual project when viewed in connection with the effects of past projects, current projects, and probable future projects. The geographic area for cumulative analysis for minerals would be Los Angeles County.

As population levels increase in the region, greater demand for aggregate and other mineral materials will be placed on mineral resources. Mineral resources are commercially viable aggregate or mineral deposits, such as sand, gravel, and other construction aggregate. The Los Angeles metropolitan area produces and consumes more construction aggregate than any other metropolitan area in the country. A continuous supply of aggregate materials for urban infrastructure is essential to the Southern California economy. Los Angeles depends on the

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### MINERAL RESOURCES

CGS to identify deposits of regionally significant aggregate resources. These clusters or belts of mineral deposits are designated MRZ-2s.

The project site is in the Irwindale Production Area and surrounded by numerous active and inactive quarries. However, there are currently no active mining operations on-site, and the proposed project does not involve mining. Additionally, the proposed project would not interfere with nearby mining operations in the Irwindale Production Area. Also, there are no oil or natural gas wells near the project site. Thus, the proposed project would not result in an impact related to loss of availability of a mineral resource of local or State value. Therefore, cumulative impacts would be less than significant.

#### 5.10.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.10-1 and 5.10-2.

#### 5.10.7 Mitigation Measures

No Mitigation Measures required.

#### 5.10.8 Level of Significance After Mitigation

Impacts 5.10-1 and 5.10-2 are less than significant.

#### 5.10.9 References

California Department of Conservation (DOC). 2023a, April 4 (accessed). Mines Online.

<https://maps.conservation.ca.gov/mol/index.html>.

———. 2023b, April 4 (accessed). Well Finder, CalGEM GIS.

<https://maps.conservation.ca.gov/doggr/wellfinder/#openModal/-117.96546/34.11125/14>.

California Geological Survey (CGS). 2023, January 3. California Non-Fuel Mineral Production 2020.

<https://www.conservation.ca.gov/cgs/documents/minerals/california-non-fuel-mineral-production-2020-a11y.pdf>.

Irwindale, City of. 1990, June 28. Reclamation Plan for United Rock Products Corporation Plant Site.

Resolution 90-22-1195. [https://www2.irwindaleca.gov/WebLink/](https://www2.irwindaleca.gov/WebLink/DocView.aspx?id=313824&dbid=0&repo=CityofIrwindale)

[DocView.aspx?id=313824&dbid=0&repo=CityofIrwindale](https://www2.irwindaleca.gov/WebLink/DocView.aspx?id=313824&dbid=0&repo=CityofIrwindale).

———. 2004, August 9. Conditional Use Permit No. 5-04 and Attendant Reclamation Plan for United Rock

Products Corporation to Continue Mining Quarry No. 2. Resolution 2004-43-1987. [https://www2](https://www2.irwindaleca.gov/WebLink/DocView.aspx?id=311924&dbid=0&repo=CityofIrwindale)

[.irwindaleca.gov/WebLink/DocView.aspx?id=311924&dbid=0&repo=CityofIrwindale](https://www2.irwindaleca.gov/WebLink/DocView.aspx?id=311924&dbid=0&repo=CityofIrwindale).

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- . 2006, January 3. Excavation/Processing Operation sand Reclamation Plan for Hanson Aggregates Irwindale Plant Ordinance No. 596.  
<https://www2.irwindaleca.gov/WebLink/DocView.aspx?dbid=0&id=301817&page=10>.
- . 2008, June 11. Durbin Amended Reclamation Plan Ordinance No. 626. Resolution No. 2008-28-2300. <https://www2.irwindaleca.gov/WebLink/DocView.aspx?dbid=0&id=10380&page=8&cr=1>.
- . 2020. City of Irwindale General Plan Update.  
<https://www.irwindaleca.gov/DocumentCenter/View/38/General-Plan?bidId=>.
- Los Angeles, County of. 1980. County of Los Angeles General Plan. [https://planning.lacounty.gov/wp-content/uploads/2023/05/gp\\_1980\\_general\\_plan.zip](https://planning.lacounty.gov/wp-content/uploads/2023/05/gp_1980_general_plan.zip).
- . 2015a. County of Los Angeles 2035 General Plan.  
<https://file.lacounty.gov/SDSInter/bos/supdocs/92401.pdf>.
- . 2015b. Mineral Resources. Figure 9.6 of County of Los Angeles 2035 General Plan.  
[https://case.planning.lacounty.gov/assets/upl/project/gp\\_2035\\_2014-FIG\\_9-6\\_mineral\\_resources.pdf](https://case.planning.lacounty.gov/assets/upl/project/gp_2035_2014-FIG_9-6_mineral_resources.pdf).
- State Mining and Geology Board (SMGB). 2014, April. SMGB Designation Report No. 12: Updated Designation of Regionally Significant Aggregate Resources in the San Gabriel Valley Production-Consumption Region, Los Angeles County. [https://www.conservation.ca.gov/smgbr/reports/Documents/Designation\\_Reports/Designation-Report-12-San-Gabriel.pdf](https://www.conservation.ca.gov/smgbr/reports/Documents/Designation_Reports/Designation-Report-12-San-Gabriel.pdf).

## 5. Environmental Analysis

### 5.11 NOISE

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Irwindale Gateway to result in noise impacts in the City of Irwindale.

The analysis in this section is based in part on the following technical report(s):

- *Irwindale Gateway Specific Plan Noise and Vibration Analysis*, Urban Crossroads, June 28, 2023

A complete copy of this study is included in the technical appendices to this Draft EIR (Appendix J)

#### 5.11.1 Environmental Setting

##### 5.11.1.1 NOISE AND VIBRATION FUNDAMENTALS

Noise is defined as unwanted sound and is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as “noisiness” or “loudness.” The following are brief definitions of terminology used in this section:

##### Technical Terminology

- **Sound.** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Decibel (dB).** A unitless measure of sound on a logarithmic scale.
- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- **Equivalent Continuous Noise Level (Leq); also called the Energy-Equivalent Noise Level.** The value of an equivalent, steady sound level which, in a stated time period (often over an hour) and at a stated location, has the same A-weighted sound energy as the time-varying sound. Thus, the Leq metric is a single numerical value that represents the equivalent amount of variable sound energy received by a receptor over the specified duration.
- **Statistical Sound Level (Ln).** The sound level that is exceeded “n” percent of time during a given sample period. For example, the L50 level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period); that is, half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the “median sound level.” The L10 level, likewise, is the value that is exceeded 10 percent of the time (i.e., near the maximum) and

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this is often known as the “intrusive sound level.” The L90 is the sound level exceeded 90 percent of the time and is often considered the “effective background level” or “residual noise level.”

- **Lmin and Lmax.** The lowest and highest measured noise levels, in terms of root-mean-square noise levels.
- **Day-Night Sound Level (Ldn or DNL).** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the sound levels occurring during the period from 10:00 pm to 7:00 am.
- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added from 7:00 pm to 10:00 pm and 10 dB from 10:00 pm to 7:00 am. For general community/environmental noise, CNEL and Ldn values rarely differ by more than 1 dB (with the CNEL being only slightly more restrictive, that is, higher than the Ldn value). As a matter of practice, Ldn and CNEL values are interchangeable and are treated as equivalent in this assessment.
- **Sensitive Receptor.** Noise- and vibration-sensitive receptors include land uses where quiet environments are necessary for enjoyment and public health and safety. Residences, schools, motels and hotels, libraries, religious institutions, hospitals, and nursing homes are examples.
- **Peak Particle Velocity (PPV).** The peak rate of speed at which soil particles move (e.g., inches per second) due to ground vibration.

### Sound Fundamentals

Sound is a pressure wave transmitted through the air. It is described in terms of loudness or amplitude (measured in decibels), frequency or pitch (measured in Hertz [Hz] or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the loudness of sound is the decibel (dB). Changes of 1 to 3 dBA are detectable under quiet, controlled conditions, and changes of less than 1 dBA are usually indiscernible. A 3 dBA change in noise levels is considered the minimum change that is detectable with human hearing in outside environments. A change of 5 dBA is readily discernable to most people in outside environments, and a 10 dBA change is perceived as a doubling (or halving) of the sound.

The human ear is not equally sensitive to all frequencies. Sound waves below 16 Hz are not heard at all and are “felt” more as a vibration. Similarly, while people with extremely sensitive hearing can hear sounds as high as 20,000 Hz, most people cannot hear above 15,000 Hz. In all cases, hearing acuity falls off rapidly above about 10,000 Hz and below about 200 Hz. Since the human ear is not equally sensitive to sound at all frequencies, a special frequency dependent rating scale is usually used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

### Sound Measurement

Sound pressure is measured through the A-weighted measure to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies similar to the human ear’s response to those frequencies.

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### NOISE

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale, as points on a sharply rising curve. On a logarithmic scale, an increase of 10 dBA is 10 times more intense than 1 dBA, 20 dBA is 100 times more intense than 1 dBA, and 30 dBA is 1,000 times more intense than 1 dBA. A sound as soft as human breathing is about 10 times greater than 0 dBA. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud).

A sound's decibel level decreases as the distance increases from the source of the sound. Sound dissipates exponentially with distance from its source, and this phenomenon is known as "spreading loss." For a single point source, sound levels decrease by approximately 6 dBA for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by on-site operations from stationary equipment or activity at a project site. If noise is produced by a line source, such as highway traffic, the sound decreases by 3 dBA for each doubling of distance in a hardscape environment, such as buildings, pavement, and other hard surfaces. Line source noise in a relatively flat environment with absorptive soft surfaces, such as vegetation, decreases by 4.5 dBA for each doubling of distance.

Time variation in noise exposure is typically expressed in terms of a steady-state energy level equal to the energy content of the time period (called  $L_{eq}$ ), or alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. For example, L50 represents the noise level that is exceeded 50 percent of the time; that is, the noise level exceeds the L50 half the time, and is less than the L50 half the time, or, L50 is exceeded 30 minutes in an hour. Similarly, the L2, L8, and L25 values represent the noise levels that are exceeded two, eight, and 25 percent of the time or one, five, and 15 minutes per hour. These "L" values are typically used to demonstrate compliance with a city's noise ordinance, as discussed below. Other noise descriptors typically noted during a noise survey are the  $L_{min}$  and  $L_{max}$ , the lowest and highest sound levels during the measurement period (in terms of root-mean-square noise levels).

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, an artificial dB increment is added to these "quiet time" noise levels in a 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL) or Day-Night Noise Level (Ldn). The CNEL descriptor adds an artificial increment of 5 dBA to the actual noise level for the hours from 7:00 pm to 10:00 pm and 10 dBA for the hours from 10:00 pm to 7:00 am. The Ldn descriptor uses the same methodology except that it only adds 10 dBA from 10:00 pm to 7:00 am. Both descriptors give roughly the same 24-hour level, with the CNEL being only slightly more restrictive (i.e., higher).

### Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects our entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, affecting blood pressure, functions of the heart, and the nervous system. Extended periods of noise exposure above 90 dBA can result in permanent hearing damage. When the noise level reaches 120 dBA, it causes a tickling sensation in the human ear called the "threshold of feeling." As the sound reaches 140 dBA, the tickling sensation is replaced by pain, called the "threshold of pain." Table 5.11-1, *Typical Noise Levels* shows typical noise levels from familiar noise sources.

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### NOISE

**Table 5.11-1 Typical Noise Levels**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Onset of physical discomfort	120+	
	110	Rock Band (near amplification system)
Jet Flyover at 1,000 feet	100	
Gas Lawn Mower at three feet	90	
Diesel Truck at 50 feet, at 50 mph	80	Food Blender at 3 feet Garbage Disposal at 3 feet
Noisy Urban Area, Daytime	70	Vacuum Cleaner at 10 feet Normal speech at 3 feet
Commercial Area Heavy Traffic at 300 feet	60	Large Business Office Dishwasher Next Room
Quiet Urban Daytime	50	Theater, Large Conference Room (background)
Quiet Urban Nighttime	40	Library
Quiet Suburban Nighttime	30	Bedroom at Night, Concert Hall (background)
Quiet Rural Nighttime	20	Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: Caltrans 2013.

### Vibration Fundamentals

Vibration is an oscillating motion in the earth. Like noise, vibration is transmitted in waves, but in this case through the earth or solid objects. Unlike noise, vibration is typically of a frequency that is felt rather than heard. Vibration amplitudes can be described in terms of peak particle velocity (PPV), which is the maximum instantaneous peak of the vibration signal. PPV is appropriate for evaluating potential building damage. The units for PPV are normally inches per second (in/sec). Typically, groundborne vibration generated by human activities attenuates rapidly with distance from the source of the vibration.

#### 5.11.1.2 REGULATORY BACKGROUND

Federal, state, and local laws, regulations, plans, or guidelines related to noise and vibration and potentially applicable to the proposed project are summarized below.

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### State

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a general plan that includes a noise element which is to be prepared according to guidelines adopted by the Governor's Office of Planning and Research.

### *Irwindale General Plan Guidelines*

The State of California's *General Plan Guidelines* discusses how ambient noise should influence land use and development decisions and includes a table of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable uses at different noise levels, expressed in CNEL. A conditionally acceptable designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use is made and needed noise insulation features are incorporated in the design. A normally acceptable designation indicates standard construction with no special noise reduction requirements. Local municipalities adopt these compatibility standards as part of their general plans and modify them as appropriate for their local environmental setting. The City of Irwindale has adopted its own land use compatibility standards in its general plan. The City's noise and land use compatibility table is shown in Table 5.11-2, *Irwindale Noise and Land Use Compatibility Guidelines*.

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**Table 5.11-2 Irwindale Noise and Land Use Compatibility Guidelines**

Land Uses	CNEL or Ldn (dBA)					
	55	60	65	70	75	80
Residential-Low Density Single Family, Duplex, Mobile Homes	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
Residential- Multiple Family	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
Transient Lodging: Hotels and Motels	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
Schools, Libraries, Churches, Hospitals, Nursing Homes	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
Auditoriums, Concert Halls, Amphitheaters	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
Sports Arena, Outdoor Spectator Sports	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
Playground, Neighborhood Parks	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
Office Buildings, Businesses, Commercial and Professional	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
Industrial, Manufacturing, Utilities, Agricultural	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded

**Explanatory Notes**

	<p><b>Clearly Acceptable:</b> Specified land use is satisfactory, based on the assumption that any buildings are of normal conventional construction, without any special noise insulation requirements</p>		<p><b>Normally Unacceptable:</b> New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in design.</p>
	<p><b>Normally Acceptable:</b> New construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features included in design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.</p>		<p><b>Clearly Unacceptable:</b> New construction or development should generally not be undertaken. If the proposed development is intended for storage or other uses where persons will not be exposed to excessive noise levels, and a detailed analysis provides for adequate noise insulation features, the new development or construction may occur.</p>

Source: OPR General Plan Guidelines, Appendix D: Noise Element Guidelines, Figure 2.

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### *Operational Noise Standards*

To analyze noise impacts originating from a designated fixed location or private property such as the Irwindale Gateway Specific Plan project, stationary-source (operational) noise such as the expected loading dock activity, parking lot vehicle activities, roof-top air conditioning units, trash enclosure activity, and truck movements are typically evaluated against standards established under a jurisdiction's municipal code or general plan.

Although the project site is in the City of Irwindale, nearby receiver locations are also in adjacent Los Angeles County and Baldwin Park. Table 5.11-3 describes the operational noise standards for each of the respective jurisdiction. A review of the operational noise criteria for City of Irwindale, Los Angeles County, and the City of Baldwin Park shows that the City of Irwindale maintains the most restrictive exterior noise standards for residential land use. Therefore, this analysis relies on the lower and more conservative City of Irwindale exterior noise criteria exterior noise level limit of 50 dBA Leq, and 45 dBA Leq for noise-sensitive residential land use.

**Table 5.11-3 Operational Noise Standards**

Jurisdiction	Time of day	Exterior Noise Level Limit (dBA Leq)	
		Daytime (7am–10pm)	Nighttime (10pm–7am)
City of Irwindale <sup>1</sup>	Residential	50	45
	Commercial	55	50
	Industrial	70	60
County of Los Angeles <sup>2</sup>	Residential	50	45
City of Baldwin Park <sup>3</sup>	Residential	55	45

<sup>1</sup> City of Irwindale Municipal Code, Section 9.28.030.

<sup>2</sup> Los Angeles County Code Section 12.08.390[A].

<sup>3</sup> City of Baldwin Park Municipal Code, Section 153.140.070.

### *County of Los Angeles Construction and Operational Standards*

#### *Operational Noise*

The Los Angeles County Code, Section 12.08.390[A], establishes the noise level standards for stationary noise sources. For residential properties, the exterior noise level must not exceed 50 dBA Leq during the daytime hours (7:00 am to 10:00 pm) and 45 dBA Leq during the nighttime hours (10:00 pm to 7:00 am). Section 12.08.390[B] indicates that if the existing ambient noise level already exceeds any of the exterior noise level limit categories, then the standard must be adjusted to reflect the ambient conditions. Chapter 12.08, Noise Control, from the Los Angeles County Code is included in Appendix 3.2 of Appendix J, *Noise and Vibration*.

#### *Construction Noise*

The County of Los Angeles has set restrictions to control noise impacts associated with the construction of the proposed project. Code of Ordinances, Section 12.08.440, indicates that construction activity is limited to the hours of 7:00 am to 8:00 pm for daytime construction and identifies the construction noise level threshold for use in this noise study. The standard applicable to the proposed project indicates that project construction

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noise levels shall not exceed 60 dBA at the property line of single-family residential during long term construction periods of 10 days or more.

#### *Baldwin Park Operational Standards*

For noise-sensitive residential properties, the City of Baldwin Park Municipal Code, Section 130.34[A], states that it is unlawful for any person within the city to make, cause, or allow to be produced noise which is received on property occupied by another person within the designated zone, in excess of the following levels, except as expressly provided otherwise in the code. Section 130.34[A] identifies ambient base noise levels and stationary-source noise level limits by land use zone for the daytime hours (7:00 am to 10:00 pm) and nighttime hours (10:00 pm to 7:00 am). For the nearby noise-sensitive residential land use, the municipal code identifies a noise level limit of 55 dBA Leq anytime during the daytime and 45 dBA Leq during the nighttime. The City of Baldwin Park Municipal Code Noise Standards are included in Appendix 3.3 of Appendix J.

#### *City of Irwindale Construction and Operational Standards*

##### *Operational Noise*

Chapter 9.28 of the Irwindale Municipal Code establishes the City's noise standards. Chapter 9.28 generally prohibits noise that is loud, unnecessary, or unusual, or that annoys, disturbs, injures, or endangers the comfort, repose, health, peace, or safety of others within the limits of the city.

Irwindale Municipal Code, Section 9.28.030, identifies the exterior noise level standards for receiving land uses in the City. For residential uses, the daytime (7:00 am to 10:00 pm) exterior noise level limit is 50 dBA Leq, and 45 dBA Leq during the nighttime hours (10:00 pm to 7:00 am). Exterior noise levels at commercial uses shall not exceed 55 dBA Leq daytime and 50 dBA Leq nighttime standards, and at industrial uses, the 70 dBA Leq daytime and 60 dBA Leq nighttime standards. Appendix 3.1 of Appendix J includes the City of Irwindale Municipal Code noise standards. To evaluate whether the project's general industrial land use could potentially impact adjacent noise-sensitive uses in the project study area, this noise study relies on the more conservative residential noise level standards to describe potential project-related operational noise impacts.

##### *Construction Noise*

The City of Irwindale has set restrictions to control noise impacts associated with the construction of the proposed project. Municipal Code, Section 9.28.110, indicates that construction activity is limited to the hours of 7:00 am to 7:00 pm and cannot violate Section 9.28.040 unless authorized by a building inspector. Section 9.28.040 identifies the construction noise level threshold for use in this noise study and indicates that project construction noise levels shall not exceed the base exterior noise level standard or the ambient noise level by more than 5 dBA at sensitive receiver locations.<sup>1</sup>

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<sup>1</sup> CEQA best practices consider sensitive receivers as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas.

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#### *Caltrans (Vibration)*

Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment—air compressors, light trucks, hydraulic loaders, etc.—generate little or no ground vibration. To analyze vibration impacts originating from the operation and construction of the Irwindale Gateway Specific Plan, vibration-generating activities are appropriately evaluated against standards established under the Municipal Code if such standards exist. However, the City of Irwindale does not identify specific construction vibration level limits. Therefore, for analysis purposes, vibration damage thresholds from the Caltrans Transportation and Construction Vibration Guidance Manual are used in this noise study to assess potential temporary construction-related impacts at building locations. The nearest noise-sensitive buildings to the project site can best be described as “older residential structures” with a maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec) (Caltrans 2020).

#### 5.11.1.3 EXISTING CONDITIONS

##### Existing Noise Environment

The project site is predominantly in a commercial/industrial area in Irwindale, directly adjacent to Interstate 605 (I-605). The site is predominantly characterized by traffic noise along I-605 and local roadways. Noise from nearby commercial/industrial land uses also contributes intermittently to the overall noise environment in the project vicinity. Additionally, the Irwindale Speedway and Event Center contributes to the ambient noise environment when events occur there.

##### Sensitive Receptors

Certain land uses, such as residences, schools, and hospitals, are particularly sensitive to noise and vibration. Sensitive receptors include residences, senior housing, schools, places of worship, and recreational areas. These uses are regarded as sensitive because they are where citizens most frequently engage in activities that are likely to be disturbed by noise, such as reading, studying, sleeping, resting, or quiet or passive recreation. Commercial and industrial uses are not particularly sensitive to noise but are evaluated for vibration damage. The project site is surrounded by commercial/industrial land uses. The nearest described sensitive receptors were used for analysis purposes. See Figure 5.11-1, *Noise Receiver Locations*, for the approximate locations of the nearest identified sensitive receptors.

**Receiver 1 (R1)** is the noise-sensitive residence at 2585 Mountain Avenue in unincorporated Los Angeles County and 4,518 feet northwest of the project site. R1 is considered the private outdoor living areas facing the project site. A 24-hour noise measurement in Location 1 (L1) represents the existing ambient noise environment of R1.

**Receiver 2 (R2)** is the Kare Youth League sports complex at 1417 Arrow Highway, 437 feet north of the project site. Since there are no private outdoor living areas (backyards) facing the project site, R2 is considered the bleachers. A 24-hour noise measurement in L2 represents the existing ambient noise environment of R2.

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**Receiver 3 (R3)** is the noise-sensitive residence at 5114 Stewart Avenue in Baldwin Park and 2,372 feet southeast of the project site. Since there are no private outdoor living areas (backyards) facing the project site, R3 is considered the building façade. A 24-hour noise measurement in L3 represents the existing ambient noise environment of R3.

**Receiver 4 (R4)** is the noise-sensitive residence at 13807 Nubia Street in Baldwin Park and 2,209 feet southeast of the project site. R4 is considered the private outdoor living areas facing the project site. A 24-hour noise measurement in L4 represents the existing ambient noise environment of R4.

**Receiver 5 (R5)** is Olive Middle School at 13701 Olive Street in Baldwin Park and 2,764 feet south of the project site. R5 is considered the building façade. A 24-hour noise measurement in L5 represents the existing ambient noise environment.

#### *Long-Term Ambient Noise Monitoring*

To assess the existing noise environment, measurements were taken at five locations in the project study area. The locations were selected to describe and document the existing noise environment in the project study area. Figure 5.11-2, *Approximate Noise Monitoring Locations*, shows the boundaries of the project study area and the locations of noise monitoring. To fully describe the existing noise conditions, noise measurements were collected by Urban Crossroads on Wednesday, April 26, 2023. Table 5.11-4, *Long Term Noise Measurement Summary*, presents the daytime and nighttime dBA Leq averages and the CNEL from the noise-monitoring locations.

**Table 5.11-4 Long-Term Noise Measurement Summary**

Monitoring Location <sup>1</sup>	Description	24-hour Noise Level, dBA <sup>2</sup>		
		CNEL	Daytime Average dBA Leq	Nighttime Average dBA Leq
L1	Northwest of the project site Near the residence at 2585 Mountain Ave.	64.1	58.2	56.8
L2	North of the project site Near the sports complex at 1417 Arrow Hwy.	78.5	74.2	71.3
L3	Southeast of the project site Near the residence at 5114 Stewart Ave.	70.6	65.0	63.7
L4	South of the project site Near the residence at 13803 Chilcot St.	65.1	62.6	56.5
L5	South of the project site Near Olive Middle School at 13602 Olive St.	66.1	63.2	57.2

Source: Urban Crossroads 2023.

<sup>1</sup> See Figure 5.11-2 for the noise monitoring locations.

<sup>2</sup> Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix J.  
"Daytime" = 7:00 am to 10:00 pm; "Nighttime" = 10:00 pm to 7:00 am

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Figure 5.11-1 - Noise Receiver Locations



- Project Site Boundary
- City Boundary
-  Receiver Locations (5)
-  Distance from Receiver to Project Site Boundary (in feet)

0 1,200  
Scale (Feet)



Source: Urban Crossroads, 2023.

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Figure 5.11-2 - Approximate Noise Monitoring Locations



-  Project Site Boundary
-  City Boundary
-  Noise Measurement Locations (5)

0 1,200  
Scale (Feet)



Source: Urban Crossroads, 2023.

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## 5. Environmental Analysis

### NOISE

Hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the equivalent daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meters and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute standard specifications for sound level meters—ANSI S1.4-2014/IEC 61672-1:2013.

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the project site. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines, which indicate that sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources. Further, FTA guidance states that it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community.

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after project noise levels and is necessary to assess potential noise impacts due to the project's contribution to the ambient noise levels.

### 5.11.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would result in:

- N-1 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.
- N-2 Generation of excessive groundborne vibration or groundborne noise levels.
- N-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, if the project would expose people residing or working in the project area to excessive noise levels.

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#### 5.11.2.1 CONSTRUCTION NOISE THRESHOLDS

To evaluate whether the project will generate potentially significant short-term noise levels at nearest receiver locations, a construction-related noise level increase threshold of 5 dBA is used, consistent with Irwindale Municipal Code Section 9.28.040.

#### 5.11.2.2 OPERATIONAL NOISE THRESHOLDS

As discussed in Section 5.11.1.2, *Regulatory Background*, the County of Los Angeles, City of Irwindale, and City of Baldwin Park codes establish exterior residential noise standards. Ambient noise measurements by Urban Crossroads and presumed ambient noise levels (Table 5.11-3, *Operational Noise Standards*) are used to determine impact significance for stationary noise sources—i.e., noise sources that are considered point sources, including conversation, use of patios, decks, balconies, loading docks, and permanent mechanical equipment like air conditioning units, cooling towers, generators, etc. This analysis relies on the lower and more conservative City of Irwindale exterior noise criteria exterior noise level limits for all jurisdictions.

The Federal Interagency Committee on Noise (FICON) developed guidance to be used for the assessment of project-generated increases in noise levels that consider the ambient noise level which would be applicable to all sensitive receptors throughout the different jurisdictions. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, they are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (CNEL) and equivalent continuous noise level (Leq).

As previously stated, the approach used in this noise study recognizes that there is no single noise increase that renders a noise impact significant—based on a 2008 California Court of Appeal ruling on *Gray v. County of Madera* F053661; 167 Cal.App.4th 1099; Cal.Rptr.3d, October 2008. For example, if the ambient noise environment is quiet (<60 dBA) and the new noise source greatly increases the noise levels, an impact may occur if the noise criteria are exceeded. Therefore, for this analysis, a readily perceptible 5 dBA or more project-related noise-level increase is considered a significant impact when the without-project noise levels are below 60 dBA. According to FICON, in areas where without-project noise levels range from 60 to 65 dBA, a 3 dBA increase, that is, a barely perceptible noise-level increase, appears to be appropriate for most people. When the without-project noise levels already exceed 65 dBA, any increase in community noise of 1.5 dBA or more is considered a significant impact if the noise criteria for a given land use is exceeded, since it likely contributes to an existing noise exposure exceedance. The FICON guidance provides an established source of criteria to assess the impacts of substantial temporary or permanent increase in baseline ambient noise levels. Based on the FICON criteria, the degree to which a given noise level increase is considered acceptable is reduced when the without-project (baseline) noise levels already exceed certain land-use-specific exterior noise level criteria. The specific levels are based on typical responses to noise level increases of 5 dBA, 3 dBA, and 1.5 dBA, depending on the underlying without-project noise levels for noise-sensitive uses. These levels of increases and their perceived acceptance at noise-sensitive-receiver locations are consistent with guidance provided by both the Federal Highway Administration and Caltrans.

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#### 5.11.2.3 TRANSPORTATION NOISE THRESHOLDS

A project would have a significant effect on the environment related to noise if it substantially increases the ambient noise levels at noise-sensitive receptors as discussed in Section 5.11.1.1, *Sound Fundamentals*. Therefore, the following thresholds of significance, similar to those recommended by the Federal Aviation Administration, are used to assess traffic noise impacts at sensitive receptor locations. A significant impact would occur if the traffic noise increase would exceed:

- 1.5 dBA in ambient noise environments of 65 dBA CNEL and higher.
- 3 dBA in ambient noise environments of 60 to 64 dBA CNEL.
- 5 dBA in ambient noise environments of less than 60 dBA CNEL.

The land use compatibility criteria in Table 5.11-2, *Irwindale Noise and Land Use Compatibility Guidelines*, were used to establish the satisfactory noise levels of significance for land uses in the project study area within the City of Irwindale that are not noise sensitive. Table 5.11-2 shows the *normally acceptable* exterior noise level for the project-related warehouse/industrial land use is 75 dBA CNEL. To determine if project-related traffic noise level increases are significant at off-site non-noise-sensitive land uses, a 3 dBA criteria is used. When the without-project noise levels are greater than the *normally acceptable* 75 dBA CNEL land use compatibility criteria, a 3 dBA or more noise-level increase is considered a significant impact because the noise level criterion is already exceeded. The noise level increases used to determine significant impacts for non-noise-sensitive land uses are generally consistent with the Federal Aviation Administration noise level increase thresholds for noise-sensitive land uses but rely on the *normally acceptable* 75 dBA CNEL exterior noise level criteria outlined in Table 5.11-2, *Irwindale Land Use Noise Compatibility Criteria*, for warehouse/industrial land use.

#### 5.11.2.4 VIBRATION THRESHOLDS

The City of Irwindale does not have quantified limits for vibration impact. Caltrans provides acceptable groundborne vibration criteria for various types of buildings, and those are used in this analysis to determine impact significance. Structures amplify groundborne vibration, and wood-frame buildings, such as typical residential structures, are more affected by ground vibration than heavier, engineered buildings. The nearest noise-sensitive buildings to the project site can best be described as “older residential structures,” which have a maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec).

### 5.11.3 Applicable Specific Plan Development Standards and Design Guidelines

#### 5.11.3.1 DEVELOPMENT STANDARDS

There are no specific Irwindale Gateway Specific Plan Development Standards specifically related to noise and vibration.

#### 5.11.3.2 DESIGN GUIDELINES

There are no specific Irwindale Gateway Specific Plan Design Guidelines specifically related to noise and vibration.

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#### 5.11.4 Environmental Impacts

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**Impact 5.11-1: Construction activities would result in temporary noise increases in the vicinity of the proposed project that would not exceed local standards or cause a substantial increase in ambient noise levels. [Threshold N-1]**

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This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the project. The Irwindale Municipal Code, Section 9.28.110, indicates that construction activity is limited to the hours of 7:00 am to 7:00 pm and cannot violate Section 9.28.040 unless authorized by a building inspector. In addition, Section 9.28.040 identifies the construction noise level threshold and indicates that project construction noise levels shall not exceed the base exterior noise level standard or the ambient noise level by more than 5 dBA at the sensitive receiver locations. The County of Los Angeles Code of Ordinances, Section 12.08.440, indicates that construction activity is limited to the hours of 7:00 am to 8:00 pm for daytime construction. In addition, section 12.08.440 states that project construction noise levels shall not exceed 60 dBA at the property line of single-family residential during long term construction periods of 10 days or more. The City of Baldwin Park does not include a threshold for construction noise; therefore, the County of Los Angeles thresholds will apply to sensitive receptors in Baldwin Park. Finally, the 5 dB increase over ambient threshold is applied to all receptors due to the recent ruling in the King and Gardiner Farms case. The King and Gardiner Farms lawsuit founded that construction noise which results in a 5 dB increase over ambient would result in a significant impact and mitigation would be necessary.

The Federal Transit Administration's *Transit Noise and Vibration Impact Assessment Manual* recognizes that construction projects are accomplished in several different stages and outlines the procedures for assessing noise impacts during construction. Each stage has a specific equipment mix, depending on the work to be completed during that stage. As a result of the equipment mix, each stage has its own noise characteristics; some stages have higher continuous noise levels than others, and some have higher impact noise levels than others.

To describe construction noise activities, this construction noise analysis was prepared using reference construction equipment noise levels from the Federal Highway Administration's (FHWA) published Roadway Construction Noise Model (RCNM), which includes a national database of construction equipment reference noise emission levels. The RCNM equipment database provides a comprehensive list of the noise-generating characteristics for specific types of construction equipment. In addition, the database provides an acoustical usage factor to estimate the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

To evaluate whether the project will generate potentially significant short-term noise levels at nearest receiver locations, a construction-related noise level increase threshold of 5 dBA is used, consistent with Irwindale Municipal Code Section 9.28.040 and is applicable to the other jurisdictions because of the ruling found in *King and Gardiner Farms, LLC v. County of Kern* 45 Cal.App.5th 814 (Cal. Ct. App. 2020). The County of Los Angeles has its own construction noise threshold that prevents the exterior of single-family residences to exceed the 60 dBA  $L_{eq}$  noise threshold during construction periods that carry on for more than 10 days. Given that Baldwin Park does not have its own quantified noise threshold but is incorporated into the County of Los Angeles, the

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counties’ construction threshold can be applicable to receptors in Baldwin Park. Table 5.11-5, *Project Related Construction Noise, dBA Leq*, shows that project construction will generate noise-level increases from 0.2 to 0.3 dBA Leq at the nearest receiver locations. The construction noise analysis shows that the nearest receiver locations will not exceed the noise level increase threshold of 5 dBA. Therefore, the noise impacts due to project construction noise are considered less than significant at all receiver locations.

**Table 5.11-5 Project-Related Construction Noise, dBA Leq**

Construction Activity Phase	RCNM Reference Combined Noise Level at 50 feet	Selected Off-Site Receptors				
		R1	R2	R3	R4	R5
Site Prep	80	41.5	56.9	47.9	48.1	45.8
Grading	83	44.5	59.9	50.9	51.1	48.8
Building Construction	81	42.5	57.9	48.9	49.1	46.8
Architectural Coating	83	39.5	54.9	45.9	46.1	43.8
Paving	77	44.5	59.9	50.9	51.1	48.8
<b>Maximum dBA Leq from Construction<sup>1</sup></b>		<b>44.5</b>	<b>59.9</b>	<b>50.9</b>	<b>51.1</b>	<b>48.8</b>
<b>Exceed County of LA Leq Threshold?</b>		<b>No</b>	<b>NA<sup>2</sup></b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>Measured Ambient Noise Level</b>		<b>58.2</b>	<b>74.2</b>	<b>65.0</b>	<b>62.6</b>	<b>63.2</b>
<b>Combined Max Construction and Ambient</b>		<b>58.4</b>	<b>74.4</b>	<b>65.2</b>	<b>62.9</b>	<b>63.4</b>
<b>Project Increase dBA Leq</b>		<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>0.2</b>
<b>Exceeds 5 dBA Leq Threshold?</b>		<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: Urban Crossroads 2023.

<sup>1</sup> Construction noise-level calculations based on distance from the construction activity, which is measured from the project site boundary to the nearest receiver locations. CadnaA construction noise model inputs are included in Appendix 10.1 of Appendix J.

<sup>2</sup> Receptor is located within the City of Irwindale which has a quantified construction noise threshold; therefore, the County of LA construction noise threshold is not applicable to the receiver.

*Level of Significance Before Mitigation:* Less Than Significant.

**Impact 5.11-2 Project implementation would result in long-term operation-related noise that would not exceed local standards or cause a substantial increase over ambient noise levels. . [Threshold N-1]**

**Operational Noise**

This section analyzes the potential stationary-source operational noise impacts at the nearest receiver locations resulting from the operation of the proposed Irwindale Gateway Specific Plan, Option 1 and Option 2.

Project Option 1 would redevelop the project site with three new industrial buildings providing 982,796 square feet of building space—954,796 square feet of warehouse space and 28,000 square feet of office space. A

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variety of general warehousing and manufacturing tenants could be accommodated in the three buildings. The proposed project would include 918 standard vehicle parking spaces and 346 trailer parking spaces.

Project Option 2 would include two industrial buildings that consist of 704,070 total square feet of building space—668,070 square feet of warehouse space, 36,000 square feet of office space, and a 400-megawatt battery energy storage system (BESS) on approximately 16 acres. The parking for this option would include 617 standard vehicle spaces and 257 trailer spaces.

Consistent with similar industrial/warehouse uses, the project’s business operations would primarily be conducted in the enclosed buildings except for traffic movement, parking, and loading and unloading of trucks at designated loading bays. The on-site, project-related noise sources are expected to include loading dock activity, parking lot vehicle activity, roof-top air-conditioning units, trash enclosure activity, and truck movements.

To estimate the project’s operational noise impacts, reference noise-level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed project. Thus, noise level measurements shown in Table 5.11-6, *Reference Noise Levels*, are used to estimate the project operational noise impacts. It is important to note that the projected noise levels assume the worst-case noise environment. With loading dock activity, parking lot vehicle activities, roof-top air conditioning units, trash enclosure activity, and truck movements all operating at the same time. The activity of these noise sources will likely vary throughout the day.

**Table 5.11-6 Reference Noise Levels**

Reference Noise Source	Noise Source Height (Feet)	Minutes per Hour <sup>1</sup>		Reference Noise Level (dBA L <sub>eq</sub> ) @ 50 Feet	Sound Power Level (dBA) <sup>2</sup>
		Day	Night		
Loading Dock Activity	8'	60	60	65.7	111.5
Parking Lot Vehicle Movements	5'	60	60	52.6	81.1
Roof-Top Air Conditioning Units	5'	39	28	57.2	88.9
Trash Enclosure Activity	5'	60	30	57.3	89.0
Truck Movements	8'	60	60	59.8	93.2
Battery Energy Storage System (BESS)	8'	60	60	50.6	82.2

Source: Urban Crossroads 2023.

<sup>1</sup> Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the project site. "Daytime" = 7:00 a.m.–10:00 p.m.; "Nighttime" = 10:00 p.m.–7:00 a.m.

<sup>2</sup> Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels calculated using the CadnaA noise model at the reference distance to the noise source. Numbers may vary due to size differences between point and area noise sources.

To fully describe the exterior operational noise levels from the project, Urban Crossroads developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources—using a spatially accurate project site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers to predict outdoor noise levels. Using the ISO 9613-2 protocol, CadnaA calculates the distance from each noise source to the noise receiver—using the ground

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absorption, distance, and barrier/building attenuation inputs—to provide a summary of noise level at each receiver and the partial noise level contributions by noise sources. Consistent with the ISO 9613-2 protocol, the CadnaA noise prediction model relies on the reference sound power level ( $L_w$ ) to describe individual noise sources. While sound pressure levels (e.g.,  $L_{eq}$ ) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels ( $L_w$ ) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment.

The operational noise level calculations in this noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the CadnaA noise analysis to account for mixed ground, representing a combination of hard and soft surfaces.

To describe the project operational noise level increases, the project operational noise levels are combined with the existing ambient noise levels measurements for the nearby receiver locations potentially impacted by project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the project-operational and existing ambient noise levels cannot be combined using standard arithmetical equations. Instead, they must be logarithmically added using the following base equation:

$$SPL_{Total} = 10\log_{10}[10^{SPL1/10} + 10^{SPL2/10} + \dots + 10^{SPLn/10}]$$

Where “SPL1,” “SPL2,” etc. are equal to the sound pressure levels being combined, or in this case, the project-operational and existing ambient noise levels. The difference between the combined project and ambient noise levels describes the project noise level increases to the existing ambient noise environment.

### Option 1

Table 5.11-7, *Option 1: Operational Noise Level Compliance, dBA  $L_{eq}$* , shows project Option 1 operational noise levels during the daytime hours, which are expected to range from 36.1 to 47.9 dBA  $L_{eq}$ , with nighttime hourly noise levels ranging from 36.0 to 47.9 dBA  $L_{eq}$ . The differences between the daytime and nighttime noise levels are largely related to the estimated duration of noise activity, as outlined in Table 5.11-6, *Reference Noise Levels*. Table 5.11-7 shows that the operational noise levels associated with Irwindale Gateway Specific Plan will not exceed the City of Irwindale daytime and nighttime exterior noise level standards. Therefore, the operational noise impacts are considered less than significant at the nearby noise-sensitive receivers. Project Option 1 operational noise level inputs and calculations are included in Appendix J.

**Table 5.11-7 Option 1: Operational Noise Level Compliance, dBA  $L_{eq}$**

Receiver Locations	Project Operational Noise Levels (dBA $L_{eq}$ )		Noise Level Standards (dBA $L_{eq}$ ) <sup>1</sup>		Noise Level Standards Exceeded?	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	37.7	37.4	50	45	No	No
R2	47.9	47.9	50	.2	No	No
R3	42.4	42.8	50	45	No	No

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**Table 5.11-7 Option 1: Operational Noise Level Compliance, dBA L<sub>eq</sub>**

Receiver Locations	Project Operational Noise Levels (dBA L <sub>eq</sub> )		Noise Level Standards (dBA L <sub>eq</sub> ) <sup>1</sup>		Noise Level Standards Exceeded?	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R4	41.5	40.1	50	45	No	No
R5	39.0	36.0	50	3 <sup>3</sup>	No	No

Source: Urban Crossroads 2023.

<sup>1</sup> This analysis relies on the lower and more conservative City of Irwindale exterior operational noise level limit for all jurisdictions..

<sup>2</sup> Represents the Kare Youth League sports complex and does not include any noise sensitive nighttime receivers.

<sup>3</sup> Represents Olive Middle School and does not include any noise sensitive nighttime receivers.

"Daytime" = 7:00 am–10:00 pm; "Nighttime" = 10:00 pm–7:00 am.

Noise levels that would be experienced at receiver locations when project Option 1 source noise is added to the daytime and nighttime ambient conditions are presented on Table 5.11-8, *Option 1: Daytime and Nighttime Project Operational Noise Level Increases, dBA L<sub>eq</sub>*. As indicated on Table 5.11-8, Option 1 would generate noise level increases from 0.0 to 0.1 dBA L<sub>eq</sub> at the nearest receiver locations. Project Option 1 would not exceed the operational noise level increase significance criteria; therefore, the increases at the sensitive receiver locations would be less than significant.

**Table 5.11-8 Option 1: Daytime and Nighttime Project Operational Noise Level Increases, dBA L<sub>eq</sub>**

Receiver Locations	Total Project Operational Noise <sup>1</sup>		Measurement Location	Reference Ambient Noise Levels		Combined Project and Ambient		Project Increase		Increase Criteria		Increase Criteria Exceeded?	
	Day	Night		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
R1	37.5	37.4	L1	58.2	56.8	58.2	56.8	0.0	0.0	5.0	5.0	No	No
R2	47.9	47.9	L2	74.2	71.3	74.2	71.3	0.0	0.0	1.5	1.5	No	No
R3	42.9	42.8	L3	65.0	63.7	65.0	63.7	0.0	0.0	1.5	5.0	No	No
R4	40.2	40.1	L4	62.6	56.5	62.6	56.6	0.0	0.1	5.0	5.0	No	No
R5	36.1	36.0	L5	63.2	57.2	63.2	57.2	0.0	0.0	5.0	5.0	No	No

Source: Urban Crossroads 2023.

<sup>1</sup> Total project Option 1 daytime and operational noise levels as shown on Table 5.11-7.

### Option 2

Table 5.11-9, *Option 2: Operational Noise Level Compliance, dBA L<sub>eq</sub>*, shows project Option 2 operational noise levels during the daytime hours, which are expected to range from 37.7 to 47.9 dBA L<sub>eq</sub>, with nighttime hourly noise levels ranging from 37.7 to 47.8 dBA L<sub>eq</sub>. The differences between the daytime and nighttime noise levels are largely related to the estimated duration of noise activity outlined in Table 5.11-6. Table 5.11-9 shows that the operational noise levels associated with Irwindale Gateway Specific Plan project would not exceed the City of Irwindale daytime and nighttime exterior noise level standards. Therefore, the operational noise impacts are considered less than significant at the nearby noise-sensitive receiver locations. Project Option 2 operational noise level inputs and calculations are included in Appendix J.

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**Table 5.11-9 Option 2: Operational Noise Level Compliance, dBA L<sub>eq</sub>**

Receiver Locations	Project Operational Noise Levels (dBA L <sub>eq</sub> )		Noise Level Standards (dBA L <sub>eq</sub> ) <sup>1</sup>		Noise Level Standards Exceeded?	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	37.7	37.7	50	45	No	No
R2	47.9	47.8	50	<sup>2</sup>	No	No
R3	42.4	42.3	50	45	No	No
R4	41.5	41.4	50	45	No	No
R5	39.0	39.0	50	<sup>3</sup>	No	No

Source: Urban Crossroads 2023.

<sup>1</sup> This analysis relies on the lower and more conservative City of Irwindale exterior operational noise level limit for all jurisdictions..

<sup>2</sup> Represents the Kare Youth League sports complex and does not include any noise sensitive nighttime receivers.

<sup>3</sup> Represents Olive Middle School and does not include any noise sensitive nighttime receivers.

" Daytime" = 7:00 am–10:00 pm; "Nighttime" = 10:00 pm–7:00 am.

Noise levels that would be experienced at receiver locations when project Option 2 source noise is added to the daytime and nighttime ambient conditions are presented in Table 5.11-10, *Option 2: Daytime and Nighttime Project Operational Noise Level Increases, dBA L<sub>eq</sub>*. As indicated on Table 5.11-10, Option 2 would generate noise level increases ranging from 0.0 to 0.1 dBA L<sub>eq</sub> at the nearest receiver locations. Project Option 2 would not exceed the operational noise level increase significance criteria; therefore, the increases at the sensitive receiver locations would be less than significant.

**Table 5.11-10 Option 2: Daytime and Nighttime Project Operational Noise Level Increases, dBA L<sub>eq</sub>**

Receiver Locations	Total Project Operational Noise <sup>1</sup>		Measurement Location	Reference Ambient Noise Levels		Combined Project and Ambient		Project Increase		Increase Criteria		Increase Criteria Exceeded?	
	Day	Night		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
R1	37.7	37.7	L1	58.2	56.8	58.2	56.9	0.0	0.1	5.0	5.0	No	No
R2	47.9	47.8	L2	74.2	71.3	74.2	71.3	0.0	0.0	1.5	1.5	No	No
R3	42.4	42.3	L3	65.0	63.7	65.0	63.7	0.0	0.0	1.5	5.0	No	No
R4	41.5	41.4	L4	62.6	56.5	62.6	56.6	0.0	0.1	5.0	5.0	No	No
R5	39.0	39.0	L5	63.2	57.2	63.2	57.3	0.0	0.1	5.0	5.0	No	No

Source: Urban Crossroads 2023.

<sup>1</sup> Total project Option 1 daytime operational noise levels as shown on Table 5.11-9.

### Mobile Noise

To assess the off-site transportation CNEL noise level impacts associated with development of the proposed project, noise contours were developed based on the Irwindale Gateway Specific Plan Traffic Impact Analysis prepared by Iteris (2023). Scenarios provided by Iteris were: existing, existing plus project, opening year no project and opening year plus project, and future no project and future plus project. Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway.

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Overall, it is expected that Option 1 of the project would generate 2,058 two-way trips, of which 550 are truck trips, and Option 2 would generate 1,511 two-way trips, of which 418 are truck trips.

The expected roadway noise level increases from vehicular traffic were calculated by Urban Crossroads using a computer program that replicates the FHWA Traffic Noise Prediction Model- FHWA-RD-77-108. The FHWA model arrives at a predicted noise level through a series of adjustments to the reference energy mean emission level (REMEL). In California the national REMELs are substituted with the California Vehicle Noise (Calveno) emission levels. Adjustments are made to the REMEL to account for the roadway classification (e.g., collector, secondary, major or arterial); the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway); the total average daily traffic (ADT); the travel speed; the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume; the roadway grade; the angle of view (e.g., whether the roadway view is blocked); the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping); and the percentage of total ADT that flows each hour throughout a 24-hour period. Research conducted by Caltrans has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in this analysis (Caltrans 1995).

Noise contours were used to assess the project's incremental traffic-related noise impacts at land uses adjacent to roadways conveying project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources in the project study area.

#### *Option 1, Existing Project Transportation Noise Increases*

An analysis of existing traffic noise levels plus traffic noise generated by the proposed project has been included in this report for informational purposes and to fully analyze all the existing traffic scenarios identified in the Traffic Impact Analysis prepared by Iteris (2023). However, the analysis of existing off-site traffic noise levels plus traffic noise generated by the proposed project scenario will not actually occur because the project would not be fully constructed and operational until Year 2028. Table 5.11-11, *Option 1: Existing with Project Traffic Noise Level Increase, dBA CNEL*, shows that the existing-without-project exterior noise levels range from 73.4 to 79.7 dBA CNEL without accounting for any noise attenuation features such as noise barriers or topography. Existing-with-Project noise levels range from 73.5 to 79.8 dBA CNEL, a project-related off-site traffic noise level increase from 0.0 to 0.6 dBA CNEL on the study area roadway segments. Based on the significance criteria for off-site traffic noise, land uses adjacent to all the study area roadway segments would experience less than significant noise level increases on receiving land uses due to the Option 1 project-related traffic.

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**Table 5.11-11 Option 1: Existing with Project Traffic Noise Level Increase, dBA CNEL**

ID	Road	Segment	Receiving Land Use <sup>1</sup>	CNEL at Receiving Land Use (dBA) <sup>1</sup>			Incremental Noise Level Increase Threshold <sup>2</sup>	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Avenida Barbosa	n/o Arrow Highway	Non-Sensitive	73.4	73.5	0.2	n/a	No
2	Rivergrade Road	s/o Live Oak Avenue	Non-Sensitive	73.8	73.9	0.1	n/a	No
3	Baldwin Park Blvd.	s/o Live Oak Avenue	Sensitive Residences	73.7	73.8	0.2	1.5	No
4	Live Oak Avenue	s/o Arrow Highway	Non-Sensitive	78.1	78.2	0.1	3.0	No
5	Live Oak Avenue	w/o I-605 SB On-Ramp	Non-Sensitive	78.1	78.3	0.2	3.0	No
6	Live Oak Avenue	e/o Graham Road	Non-Sensitive	75.9	76.5	0.6	3.0	No
7	Live Oak Avenue	w/o Rivergrade Road	Non-Sensitive	76.3	76.6	0.3	3.0	No
8	Live Oak Avenue	w/o Stewart Avenue	Non-Sensitive	77.4	77.6	0.2	3.0	No
9	Live Oak Avenue	w/o Baldwin Park Blvd.	Non-Sensitive	77.1	77.3	0.2	3.0	No
10	Arrow Highway	w/o Live Oak Avenue	Non-Sensitive	79.7	79.8	0.0	3.0	No
11	Arrow Highway	e/o Avenida Barbosa	Non-Sensitive	76.2	76.3	0.0	3.0	No
12	Arrow Highway	e/o I-1605 NB On-Ramp	Non-Sensitive	74.9	75.0	0.1	n/a	No
13	Arrow Highway	e/o Maine Avenue	Non-Sensitive	77.0	77.2	0.2	3.0	No

Source: Urban Crossroads 2023.

"n/a" = Per the Land Use Noise Compatibility Criteria, a barely perceptible 3 dBA or greater noise level increase is considered a significant impact when the ambient noise level is greater than the normally acceptable 75 dBA CNEL compatibility criteria for industrial land use (Table 5.11-2).

<sup>1</sup> Based on a review of existing aerial imagery. Noise-sensitive uses are limited to existing residential land uses.

<sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

*Option 1, Buildout Year 2028 Traffic Noise Increases*

Table 5.11-12, *Option 1: Buildout Year (2028) with-Project Traffic Noise Level Increase, dBA CNEL*, shows that the buildout year 2028 without-project exterior noise levels will range from 75.4 to 81.3 dBA CNEL without accounting for any noise attenuation features such as noise barriers or topography. Table 5.11-12 shows that the Buildout Year 2028 with-project noise levels will range from 75.5 to 81.4 dBA CNEL, resulting in a project-related, off-site traffic noise increase from 0.0 to 0.4 dBA CNEL on the study area roadway segments. Based on the significance criteria for off-site traffic noise, land uses adjacent to all the study area roadway segments would experience less than significant noise level increases on receiving land uses due to the Option 1 buildout year 2028 project-related traffic.

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**Table 5.11-12 Option 1: Buildout Year (2028) with-Project Traffic Noise Level Increase, dBA CNEL**

ID	Road	Segment	Receiving Land Use <sup>1</sup>	CNEL at Receiving Land Use (dBA) <sup>1</sup>			Incremental Noise Level Increase Threshold <sup>2</sup>	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Avenida Barbosa	n/o Arrow Highway	Non-Sensitive	75.6	75.7	0.1	3.0	No
2	Rivergrade Road	s/o Live Oak Avenue	Non-Sensitive	75.8	75.9	0.1	3.0	No
3	Baldwin Park Blvd.	s/o Live Oak Avenue	Sensitive Residences	75.4	75.5	0.1	1.5	No
4	Live Oak Avenue	s/o Arrow Highway	Non-Sensitive	79.6	79.6	0.0	3.0	No
5	Live Oak Avenue	w/o I-605 SB On-Ramp	Non-Sensitive	79.6	79.7	0.1	3.0	No
6	Live Oak Avenue	e/o Graham Road	Non-Sensitive	78.3	78.7	0.4	3.0	No
7	Live Oak Avenue	w/o Rivergrade Road	Non-Sensitive	78.2	78.4	0.2	3.0	No
8	Live Oak Avenue	w/o Stewart Avenue	Non-Sensitive	79.4	79.6	0.2	3.0	No
9	Live Oak Avenue	w/o Baldwin Park Blvd.	Non-Sensitive	79.2	79.3	0.1	3.0	No
10	Arrow Highway	w/o Live Oak Avenue	Non-Sensitive	81.3	81.4	0.1	3.0	No
11	Arrow Highway	e/o Avenida Barbosa	Non-Sensitive	78.3	78.4	0.1	3.0	No
12	Arrow Highway	e/o I-1605 NB On-Ramp	Non-Sensitive	77.6	77.6	0.0	3.0	No
13	Arrow Highway	e/o Maine Avenue	Non-Sensitive	79.5	79.6	0.1	3.0	No

Source: Urban Crossroads 2023.

"n/a" = per the Land Use Noise Compatibility Criteria, a barely perceptible 3 dBA or greater noise level increase is considered a significant impact when the ambient noise level is greater than the normally acceptable 75 dBA CNEL compatibility criteria for industrial land use (Table 5.11-2).

<sup>1</sup> Based on a review of existing aerial imagery. Noise-sensitive uses limited to existing residential land uses.

<sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

### Option 1, Horizon Year 2040 Traffic Noise Increases

Table 5.11-13, *Option 1: Horizon Year (2040) with-Project Traffic Noise Level Increase, dBA CNEL*, shows that the horizon year 2040 without-project exterior noise levels will range from 76.9 to 82.7 dBA CNEL without accounting for any noise attenuation features such as noise barriers or topography. The horizon year 2040 with-project conditions noise levels would range from 77.0 to 82.7 dBA CNEL, resulting in a project-related off-site traffic noise increase from 0.0 to 0.2 dBA CNEL on the study area roadway segments. Based on the significance criteria for off-site traffic noise, land uses adjacent to all the study area roadway segments would experience less than significant noise level increases on receiving land uses due to Option 1 horizon year 2040 project-related traffic.

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**Table 5.11-13 Option 1: Horizon Year (2040) with-Project Traffic Noise Level Increase, dBA CNEL**

ID	Road	Segment	Receiving Land Use <sup>1</sup>	CNEL at Receiving Land Use (dBA) <sup>1</sup>			Incremental Noise Level Increase Threshold <sup>2</sup>	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Avenida Barbosa	n/o Arrow Highway	Non-Sensitive	77.3	77.4	0.1	3.0	No
2	Rivergrade Road	s/o Live Oak Avenue	Non-Sensitive	77.4	77.4	0.0	3.0	No
3	Baldwin Park Blvd.	s/o Live Oak Avenue	Sensitive Residences	76.9	77.0	0.1	1.5	No
4	Live Oak Avenue	s/o Arrow Highway	Non-Sensitive	80.8	80.8	0.0	3.0	No
5	Live Oak Avenue	w/o I-605 SB On-Ramp	Non-Sensitive	80.8	80.9	0.1	3.0	No
6	Live Oak Avenue	e/o Graham Road	Non-Sensitive	80.1	80.3	0.2	3.0	No
7	Live Oak Avenue	w/o Rivergrade Road	Non-Sensitive	79.7	79.8	0.1	3.0	No
8	Live Oak Avenue	w/o Stewart Avenue	Non-Sensitive	81.1	81.1	0.1	3.0	No
9	Live Oak Avenue	w/o Baldwin Park Blvd.	Non-Sensitive	80.8	80.9	0.1	3.0	No
10	Arrow Highway	w/o Live Oak Avenue	Non-Sensitive	82.7	82.7	0.0	3.0	No
11	Arrow Highway	e/o Avenida Barbosa	Non-Sensitive	80.0	80.0	0.0	3.0	No
12	Arrow Highway	e/o I-1605 NB On-Ramp	Non-Sensitive	79.4	79.5	0.0	3.0	No
13	Arrow Highway	e/o Maine Avenue	Non-Sensitive	81.3	81.3	0.0	3.0	No

Source: Urban Crossroads 2023.

"n/a" = per the Land Use Noise Compatibility Criteria, a barely perceptible 3 dBA or greater noise level increase is considered a significant impact when the ambient noise level is greater than the normally acceptable 75 dBA CNEL compatibility criteria for industrial land use (Table 5.11-2).

<sup>1</sup> Based on a review of existing aerial imagery. Noise-sensitive uses limited to existing residential land uses.

<sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

*Option 2, Existing Project Transportation Noise Increases*

An analysis of existing traffic noise levels plus traffic noise generated by the proposed project has been included in this report for informational purposes and to fully analyze all the existing traffic scenarios identified in the Traffic Impact Analysis prepared by Iteris. However, the analysis of existing off-site traffic noise levels plus traffic noise generated by the proposed project scenario will not actually occur because the project would not be fully constructed and operational until year 2028. Table 5.11-14, *Option 2: Existing-with-Project Traffic Noise Level Increase, dBA CNEL*, shows that the existing-without-project exterior noise levels will range from 76.9 to 82.7 dBA CNEL without accounting for any noise attenuation features such as noise barriers or topography. The existing-with-project noise levels will range from 77.0 to 82.7 dBA CNEL, resulting in a project-related off-site traffic noise increase from 0.0 to 0.2 dBA CNEL on the study area roadway segments. Based on the significance criteria for off-site traffic noise, land uses adjacent to all the study area roadway segments would experience less than significant noise level increases on receiving land uses due to the Option 2 project-related traffic.

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**Table 5.11-14 Option 2: Existing-with-Project Traffic Noise Level Increase, dBA CNEL**

ID	Road	Segment	Receiving Land Use <sup>1</sup>	CNEL at Receiving Land Use (dBA) <sup>1</sup>			Incremental Noise Level Increase Threshold <sup>2</sup>	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Avenida Barbosa	n/o Arrow Highway	Non-Sensitive	77.3	77.4	0.1	3.0	No
2	Rivergrade Road	s/o Live Oak Avenue	Non-Sensitive	77.4	77.4	0.0	3.0	No
3	Baldwin Park Blvd.	s/o Live Oak Avenue	Sensitive Residences	76.9	77.0	0.1	1.5	No
4	Live Oak Avenue	s/o Arrow Highway	Non-Sensitive	80.8	80.8	0.0	3.0	No
5	Live Oak Avenue	w/o I-605 SB On-Ramp	Non-Sensitive	80.8	80.9	0.1	3.0	No
6	Live Oak Avenue	e/o Graham Road	Non-Sensitive	80.1	80.3	0.2	3.0	No
7	Live Oak Avenue	w/o Rivergrade Road	Non-Sensitive	79.7	79.8	0.1	3.0	No
8	Live Oak Avenue	w/o Stewart Avenue	Non-Sensitive	81.1	81.1	0.0	3.0	No
9	Live Oak Avenue	w/o Baldwin Park Blvd.	Non-Sensitive	80.8	80.9	0.1	3.0	No
10	Arrow Highway	w/o Live Oak Avenue	Non-Sensitive	82.7	82.7	0.0	3.0	No
11	Arrow Highway	e/o Avenida Barbosa	Non-Sensitive	80.0	80.0	0.0	3.0	No
12	Arrow Highway	e/o I-1605 NB On-Ramp	Non-Sensitive	79.4	79.5	0.0	3.0	No
13	Arrow Highway	e/o Maine Avenue	Non-Sensitive	81.3	81.3	0.0	3.0	No

Source: Urban Crossroads 2023.

"n/a" = per the Land Use Noise Compatibility Criteria, a barely perceptible 3 dBA or greater noise level increase is considered a significant impact when the ambient noise level is greater than the normally acceptable 75 dBA CNEL compatibility criteria for industrial land use (Table 5.11-2).

<sup>1</sup> Based on a review of existing aerial imagery. Noise-sensitive uses limited to existing residential land uses.

<sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

#### *Option 2, Buildout Year 2028 Traffic Noise Increases*

Table 5.11-15, *Option 2: Buildout Year (2028) with-Project Traffic Noise Level Increase*, shows that the buildout year 2028 without-project exterior noise levels will range from 75.4 to 81.3 dBA CNEL without accounting for any noise attenuation features such as noise barriers or topography. The buildout year 2028 with-project noise levels will range from 75.5 to 81.3 dBA CNEL, resulting in a project-related off-site traffic noise increase from 0.0 to 0.3 dBA CNEL on the study area roadway segments. Based on the significance criteria for off-site traffic noise, land uses adjacent to all the study area roadway segments would experience less than significant noise level increases on receiving land uses due to the Option 2 buildout year 2028 project-related traffic.

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**Table 5.11-15 Option 2: Buildout Year (2028) with-Project Traffic Noise Level Increase, dBA CNEL**

ID	Road	Segment	Receiving Land Use <sup>1</sup>	CNEL at Receiving Land Use (dBA) <sup>1</sup>			Incremental Noise Level Increase Threshold <sup>2</sup>	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Avenida Barbosa	n/o Arrow Highway	Non-Sensitive	75.6	75.7	0.1	3.0	No
2	Rivergrade Road	s/o Live Oak Avenue	Non-Sensitive	75.8	75.8	0.0	3.0	No
3	Baldwin Park Blvd.	s/o Live Oak Avenue	Sensitive Residences	75.4	75.5	0.1	1.5	No
4	Live Oak Avenue	s/o Arrow Highway	Non-Sensitive	79.6	79.6	0.0	3.0	No
5	Live Oak Avenue	w/o I-605 SB On-Ramp	Non-Sensitive	79.6	79.6	0.0	3.0	No
6	Live Oak Avenue	e/o Graham Road	Non-Sensitive	78.3	78.6	0.3	3.0	No
7	Live Oak Avenue	w/o Rivergrade Road	Non-Sensitive	78.2	78.3	0.1	3.0	No
8	Live Oak Avenue	w/o Stewart Avenue	Non-Sensitive	79.4	79.5	0.1	3.0	No
9	Live Oak Avenue	w/o Baldwin Park Blvd.	Non-Sensitive	79.2	79.3	0.1	3.0	No
10	Arrow Highway	w/o Live Oak Avenue	Non-Sensitive	81.3	81.3	0.0	3.0	No
11	Arrow Highway	e/o Avenida Barbosa	Non-Sensitive	78.3	78.4	0.1	3.0	No
12	Arrow Highway	e/o I-1605 NB On-Ramp	Non-Sensitive	77.6	77.6	0.1	3.0	No
13	Arrow Highway	e/o Maine Avenue	Non-Sensitive	79.5	79.5	0.1	3.0	No

Source: Urban Crossroads 2023.

"n/a" = per the Land Use Noise Compatibility Criteria, a barely perceptible 3 dBA or greater noise level increase is considered a significant impact when the ambient noise level is greater than the normally acceptable 75 dBA CNEL compatibility criteria for industrial land use (Table 5.11-2).

<sup>1</sup> Based on a review of existing aerial imagery. Noise-sensitive uses limited to existing residential land uses.

<sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

*Option 2, Horizon Year 2040 Traffic Noise Increases*

Table 5.11-16, *Option 2: Horizon Year (2040) with-Project Traffic Noise Level Increase, dBA CNEL*, shows that the horizon year 2040 without-project exterior noise levels will range from 76.9 to 82.7 dBA CNEL without accounting for any noise attenuation features such as noise barriers or topography. The horizon year 2040 with-project noise levels will range from 77.0 to 82.7 dBA CNEL, resulting in a project-related off-site traffic noise increase from 0.0 to 0.2 dBA CNEL on the study area roadway segments. Based on the significance criteria for off-site traffic noise, land uses adjacent to all the study area roadway segments would experience less than significant noise level increases on receiving land uses due to Option 2 horizon year 2040 project-related traffic.

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**Table 5.11-16 Option 2: Horizon Year (2040) with-Project Traffic Noise Level Increase, dBA CNEL**

ID	Road	Segment	Receiving Land Use <sup>1</sup>	CNEL at Receiving Land Use (dBA) <sup>1</sup>			Incremental Noise Level Increase Threshold <sup>2</sup>	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Avenida Barbosa	n/o Arrow Highway	Non-Sensitive	77.3	77.4	0.1	3.0	No
2	Rivergrade Road	s/o Live Oak Avenue	Non-Sensitive	77.4	77.4	0.0	3.0	No
3	Baldwin Park Blvd.	s/o Live Oak Avenue	Sensitive Residences	76.9	77.0	0.1	1.5	No
4	Live Oak Avenue	s/o Arrow Highway	Non-Sensitive	80.8	80.8	0.0	3.0	No
5	Live Oak Avenue	w/o I-605 SB On-Ramp	Non-Sensitive	80.8	80.9	0.1	3.0	No
6	Live Oak Avenue	e/o Graham Road	Non-Sensitive	80.1	80.3	0.2	3.0	No
7	Live Oak Avenue	w/o Rivergrade Road	Non-Sensitive	79.7	79.8	0.1	3.0	No
8	Live Oak Avenue	w/o Stewart Avenue	Non-Sensitive	81.1	81.1	0.1	3.0	No
9	Live Oak Avenue	w/o Baldwin Park Blvd.	Non-Sensitive	80.8	80.9	0.1	3.0	No
10	Arrow Highway	w/o Live Oak Avenue	Non-Sensitive	82.7	82.7	0.0	3.0	No
11	Arrow Highway	e/o Avenida Barbosa	Non-Sensitive	80.0	80.0	0.0	3.0	No
12	Arrow Highway	e/o I-1605 NB On-Ramp	Non-Sensitive	79.4	79.5	0.1	3.0	No
13	Arrow Highway	e/o Maine Avenue	Non-Sensitive	81.3	81.3	0.0	3.0	No

Source: Urban Crossroads 2023.

"n/a" = per the Land Use Noise Compatibility Criteria, a barely perceptible 3 dBA or greater noise level increase is considered a significant impact when the ambient noise level is greater than the normally acceptable 75 dBA CNEL compatibility criteria for industrial land use (Table 5.11-2).

<sup>1</sup> Based on a review of existing aerial imagery. Noise-sensitive uses limited to existing residential land uses.

<sup>2</sup> The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

**Level of Significance Before Mitigation:** Less Than Significant.

#### **Impact 5.11-3: The project would not create excessive groundborne vibration and groundborne noise from short term construction or long term construction activity. [Threshold N-2]**

Construction can generate varying degrees of ground vibration, depending on the construction procedures and equipment. Operation of construction equipment generates vibrations that spread through the ground and diminish with distance from the source. The effect on buildings in the vicinity of the construction site varies depending on soil type, ground strata, and receptor-building construction. The effects from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Vibration from construction activities rarely reaches the levels that can damage structures.

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**Vibration**

Table 5.11-17, *Vibration Levels for Typical Construction Equipment and Sensitive Receptor Locations*, presents the expected project-related vibration levels at the sensitive receiver locations as well as ground vibration levels associated with various types of construction equipment. At distances from 437 to 4,518 feet from project construction activities, based on the distances of project construction to sensitive receptor locations, construction vibration velocity levels are estimated to range from 0.000 to 0.003 PPV (in/sec). Based on maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec), the typical project construction vibration levels will fall below the building damage thresholds at all the sensitive receiver locations. Additionally, other non-sensitive noise receptors are located closer to the proposed project than the sensitive receptors analyzed. The nearest non-sensitive noise receptor is the industrial land use building located at 13654 Live Oak Lane approximately 75 feet east from the northern most project site boundary. At 75 feet, the highest vibration level would be up to 0.040 PPV (in/sec) from the use of a vibratory roller. Thus, the nearest non-sensitive receptor would be below the threshold of damage (0.3 PPV (in/sec)). Therefore, the project-related vibration impacts are considered less than significant during typical construction activities at the project site.

**Table 5.11-17 Vibration Levels for Typical Construction Equipment and Sensitive Receptor Locations**

Equipment	PPV (in/sec)					
	FTA Reference at 25 feet	R1	R2	R3	R4	R5
Vibratory Roller	0.21	0.000	0.003	0.000	0.000	0.000
Large Bulldozer	0.089	0.000	0.003	0.000	0.000	0.000
Loaded Trucks	0.076	0.000	0.001	0.000	0.000	0.000
Jackhammer	0.035	0.000	0.001	0.000	0.000	0.000
Small Bulldozer	0.003	0.000	0.000	0.000	0.000	0.000

Sources: FTA 2018; Urban Crossroads 2023.  
NA= Not Applicable

*Level of Significance Before Mitigation:* Less Than Significant.

**Impact 5.11-4: The proximity of the project site to an airport would not result in exposure of future resident and/or workers to airport-related noise. [Threshold N-3]**

The project site is not located within two miles of a public airport or within an airport land use plan. The closest airport is the San Gabriel Valley Airport, located over 3.2 miles southwest of the project site. As such, the project site would not be exposed to excessive noise levels from airport operations, and therefore, impacts are considered less than significant.

*Level of Significance Before Mitigation:* Less Than Significant.

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#### 5.11.5 Cumulative Impacts

If construction of the proposed project were to overlap with cumulative projects in the vicinity, construction noise could result in a significant cumulative construction noise impact. Typically, if there are no planned or approved projects within 500 feet of the proposed project, there is no cumulative construction noise impact. Construction noise is greatly reduced at distances of 500 feet or more in an urban and built-out environment.

Based on Chapter 4 of this DEIR, the Park at Live Oak Specific Plan is within 500 feet of the proposed project (IRA 2 in Figure 4-3/Table 4-1). The Park at Live Oak Specific Plan is adjacent to I-605, north of Live Oak Avenue, and approximately 210 feet west of the proposed project site boundary. The nearest sensitive receptor to both projects is the Kare Youth League Irwindale Park, which is 437 feet north of the project site and 1,150 feet from the boundary of the Park at Live Oak). Since the Park at Live Oak encompasses similar land uses as the proposed project, it can be assumed that a similar mix of construction equipment would be used. We conservatively assume that the Park at Live Oak would have the same maximum construction noise as the proposed project of 59.9 dBA  $L_{eq}$  at the Kare Youth League even though it is farther away. If both projects are constructed simultaneously, they would result in a cumulative construction noise level of 62.9 dBA  $L_{eq}$ . Attenuating the cumulative construction noise level of 62.9 dBA  $L_{eq}$  into the existing ambient of 74.2 dBA  $L_{eq}$  at the sensitive receptor would result in a combined noise level of 74.5 dBA  $L_{eq}$ .<sup>2</sup> Compared to the existing noise level of 74.2 dBA  $L_{eq}$ , the cumulative construction noise level at the nearest sensitive receptor would only result in 0.3 dBA increase over ambient levels. Under cumulative conditions, noise levels would be below the City of Irwindale's construction threshold, which requires that the ambient environment not increase more than 5 dB. Additionally, the Kare Youth League would only experience a 0.1 dBA increase compared to the proposed project alone (0.2 dBA  $L_{eq}$ , shown in Table 5.11-5). Therefore, construction noise under cumulative conditions would not be considered cumulatively significant.

The Park at Live Oak would use similar construction equipment as the proposed project and generate varying degrees of vibration. The proposed project was below the 0.3 PPV (in/sec) threshold for structural damage from vibration at the Kare Youth League, and the vibration from the Park at Live Oak would be even less because it is farther from the sensitive receptor. Therefore, vibration impacts under cumulative conditions would not be considered cumulatively significant.

#### 5.11.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.12-1, 5.11-2, 5.11-3, and 5.11-4.

#### 5.11.7 Mitigation Measures

No mitigation measures would be required.

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<sup>2</sup>  $74.5 \text{ dBA} = 10 \log_{10} [10^{62.9 \text{ dBA}/10} + 10^{74.2 \text{ dBA}/10}]$

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### NOISE

#### 5.11.8 Level of Significance After Mitigation

No significant impacts were identified, and no mitigation measures are needed.

#### 5.11.9 References

- California Department of Transportation (Caltrans). 1995, June. Traffic Noise Attenuation as a Function of Ground and Vegetation Final Report. FHWA/CA/TL-95/23.
- . 2009, November. Technical Noise Supplement.
- . 2013, September. Technical Noise Supplement: A Technical Supplement to the Traffic Noise Analysis Protocol. Sacramento, CA.
- . 2020, April. Transportation and Construction Vibration Guidance Manual.
- Federal Highway Administration (FHWA). 1978, December. FHWA Highway Traffic Noise Prediction Model. FHWA-RD-77-108. US Department of Transportation.
- . 2000, April. Highway Traffic Noise in the United States: Problem and Response. US Department of Transportation, p. 3.
- . 2001. Highway Noise Barrier Design Handbook. US Department of Transportation.
- Federal Highway Administration (FHWA), Office of Environment and Planning. 2006, January. FHWA Roadway Construction Noise Model. US Department of Transportation.
- , Office of Environment and Planning, Noise and Air Quality Branch. 2011, December. Highway Traffic Noise Analysis and Abatement Policy and Guidance. US Department of Transportation.
- Federal Interagency Committee on Noise (FICON). 1992, August. Federal Agency Review of Selected Airport Noise Analysis Issues.
- Federal Transit Administration (FTA). 2018, September. Transit Noise and Vibration Impact Assessment Manual. US Department of Transportation.
- Iteris. 2023, May. Irwindale Gateway Traffic Impact Analysis. In DEIR Appendix L2.
- Office of Environmental Engineering (OEE). 1995, September. Use of California Vehicle Noise Reference Energy Mean Emission Levels (Calveno REMELs) in FHWA Highway Traffic Noise Prediction. TAN 95-03. California Department of Transportation Environmental Program.
- Office of Noise Abatement and Control. 1974, March. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. EPA/ONAC 550/9/74-004. US Environmental Protection Agency.

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———. 1981, July (revised). Noise Effects Handbook: A Desk Reference to Health and Welfare Effects of Noise. First published October 1979. EPA 550/9/82/106. US Environmental Protection Agency.

Office of Planning and Research. 2019. State of California General Plan Guidelines.

Tesla. 2019, September. Tesla Megapack Site Design Manual.

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### 5.12 PUBLIC SERVICES

This section addresses the proposed project's impacts to public services providing fire protection and emergency services, police protection, school services, and library services in the City of Irwindale from implementation of the Irwindale Gateway Specific Plan. Park services are addressed in Chapter 8, *Impacts Found Not to Be Significant*. Public and private utilities and service systems, including water, wastewater, and solid waste services and systems, are addressed in Section 5.15, *Utilities and Service Systems*.

#### 5.12.1 Fire Protection and Emergency Services

The information in this section is based partly on a written service questionnaire response by the Los Angeles County Fire Department, dated May 25, 2023. A copy of this response is in Appendix K of this DEIR.

##### 5.12.1.1 ENVIRONMENTAL SETTING

###### Regulatory Background

###### *Federal*

###### *International Fire Code*

The International Fire Code is a model code regulating minimum fire-safety requirements for new and existing buildings, facilities, storage, and processes. The code includes specialized, technical, fire- and life-safety regulations, with topics addressing fire-department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, use and storage of hazardous materials, protection of emergency responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings.

###### *State*

###### *California Fire Code*

The California Fire Code (CFC; Title 24 California Code of Regulations, Part 9) is based on the 2021 International Fire Code and includes amendments from the State of California fully integrated into the code. The California Fire Code has fire safety-related building standards that are referenced in other parts of Title 24 of the California Code of Regulations. Fire access road requirements are set forth in CFC Section 503; water supply requirements for fire flow are set forth in CFC Appendix B; and fire hydrant spacing requirements are in CFC Appendix C. The current 2022 CFC took effect in January 2023; the CFC is updated on a three-year cycle.

###### *California Health and Safety Code Sections 13000 et seq.*

Sections 13000 et seq. of the California Health and Safety Code include regulations for building standards (also in the California Building Code), fire-protection and -notification systems, fire-protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire-suppression training.

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#### *Regional*

##### *Los Angeles County Fire District Facilities Master Plan*

The Los Angeles County Fire District (LACFD) Facilities Master Plan identifies existing and future LACFD fire station development needs. The process consists of two phases; evaluating the current capacity, condition, and functionality of LACFD's facilities and then projecting future capacity deficits utilizing Southern California Association of Governments' population growth projections and methodologies developed in the first phase.

##### *County of Los Angeles Fire Code*

The 2020 edition of the Los Angeles County Fire Code adopts and incorporates the 2019 edition of the California Fire Code, with certain amendments, by the County of Los Angeles in the Fire Code, or Title 32, of the County Code.

Sections 1206.1 through 1206.4 of the County's Fire Code include provisions applicable to energy storage systems designed to provide electrical power to a building or facility.

#### *Local*

##### *City of Irwindale Municipal Code*

The 2020 edition of the Los Angeles County Fire Code, which incorporates and amends the 2019 California Fire Code, is adopted, with certain amendments, by the City of Irwindale in Chapter 15.12 of the City's Municipal Code.

### **Existing Conditions**

Fire protection and medical aid services are provided to the project site and surrounding areas by LACFD. LACFD is a full-service fire department that provides fire suppression, urban search and rescue, paramedic ambulance service, fire prevention inspections/permits, public fire education programs, emergency preparedness planning, fire cause and origin investigation, fire patrols, and other services based on community needs. LACFD calls for service pertaining to the City of Irwindale are dispatched from Station No. 29 in the City of Baldwin Park at 14334 Los Angeles Street and Station No. 48 in Irwindale at 15546 Arrow Highway. Station No. 29 is also the closest fire station to the project site, approximately 1.9 roadway miles southeast of the project site. According to LACFD, the estimated response time to the project site from Station No. 29 is six to seven minutes. Fire Station No. 29 is staffed with a four-person quint fire truck and a three-person engine. Other fire stations that would respond to the project site are Station No. 48, Station No. 169, and Station No. 152 (see Table 5.12-1, *Fire Stations and Equipment Serving the Project Site*). LACFD has indicated that there are adequate fire protection services for existing development surrounding the project site. Under existing conditions, the project site is undergoing remedial grading operations; therefore, calls for fire service to the project site are presumed to be infrequent.

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**Table 5.12-1 Fire Stations and Equipment Serving the Project Site**

Station	Address	Equipment
<b>Los Angeles County Fire</b>		
Los Angeles County Fire Station 29	14334 Los Angeles Street Baldwin Park, CA 91706	Four-person quint, three-person engine
Los Angeles County Fire Station 48	15546 Arrow Highway Irwindale, CA 91706	Four-person engine
Los Angeles County Fire Station 169	5112 Peck Road El Monte, CA 91732	Three-person engine
Los Angeles County Fire Station 152	807 Cypress Street Covina, CA 91722	Three-person engine

Source: Durbin 2023.

**5.12.1.2 THRESHOLDS OF SIGNIFICANCE**

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

FP-1 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services.

**5.12.1.3 APPLICABLE SPECIFIC PLAN DEVELOPMENT STANDARDS AND DESIGN GUIDELINES**

**Development Standards**

There are no Specific Plan development standards pertaining to fire services and facilities.

**Design Guidelines**

There are no Specific Plan design guidelines pertaining to fire services and facilities.

**5.12.1.4 ENVIRONMENTAL IMPACTS**

The following impact analysis addresses thresholds of significance regarding fire protection and emergency services. Unless otherwise noted, the impact analysis applies to both Option 1 and Option 2 development scenarios.

**Impact 5.12-1: The proposed project would introduce new structures into the Los Angeles County Fire Department service boundaries, thereby increasing the requirement for fire protection facilities and personnel. [Threshold FP-1]**

Development of the proposed project has the potential to increase the frequency of fire protection and emergency medical calls to the project site. LACFD Fire Station No. 29 (located at 14334 Los Angeles Street

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in the City of Baldwin Park) is the nearest fire station to the project site, located approximately 1.9 roadway miles southeast of the project site. LACFD has indicated that while each additional development generally creates greater demands on existing resources, the proposed project would not have a significant impact on the service demands of Station No. 29 (Durbin 2023). Therefore, current staffing and facilities at Station No. 29 would provide adequate fire protection and emergency services without the need for construction of additional facilities or expansion of existing facilities.

Under Option 2, the BESS would be designed in accordance with NFPA Part 855 standards for energy storage systems and would include multiple automatic and manual power-down/safety mechanisms, including fire protection and detection systems built into each battery container. The BESS would also include early warning detection systems for excess heat and smoke, along with a centralized Fire Alarm Control Panel communicates any potential risk to site operators and the local fire department. The proposed project would also be equipped with breakers that could be opened manually to power down different project components or the entirety of the proposed project. Electrical and fire systems would be designed to open breakers automatically during fault conditions. Each fire protection system would have a signal that would trigger battery core power-downs during a fire, electrical fire, overheating, etc. BESS components would be regularly tested and maintained, with a typical maintenance interval of twice a year for fire protection systems. Roads designed in accordance with fire department standards would provide access throughout the BESS area. A comprehensive Emergency Response Plan would be developed for the site in accordance with CalEPA requirements. The BESS would implement requirements of Sections 1206.1 through 1206.4 of the County's Fire Code. The BESS would be subject to LACFD review, and the site would be subject to periodic fire authority inspections and a permit issued by LACFD pursuant to NFPA Part 855 requirements.

Under both development options, the proposed buildings would be required by law to include fire sprinklers. The proposed buildings that would be developed on the project site would be required by law to be constructed in accordance with the California Building Standards Code and Los Angeles County Fire Code. In addition, proposed building and fire plans would be reviewed by LACFD to ensure compliance with LACFD fire and life safety requirements, including adequate access for emergency vehicles and adequate fire hydrant placement and fire flows.

As stated above, the LACFD has indicated that the proposed project would have a less-than-significant impact on fire protection services and would not necessitate new or expanded off-site fire protection facilities. Additionally, based on the project site's proximity to LACFD Fire Station No. 29 and the requirement for future buildings constructed within the project site to install appropriate fire suppression systems and comply with preventative fire measures from the California Building Standards Code and the Los Angeles County Fire Code, implementation of the proposed project would not result in nor require new or expanded off-site fire protection facilities. In addition, no fire stations are presently located on-site or are planned to be located on the project site. Therefore, there is no potential for the proposed project to have a direct physical impact related to fire protection facilities. For these reasons, the proposed project would result in a less-than-significant impact on fire protection facilities.

***Level of Significance Before Mitigation:*** Impacts would be less than significant.

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### 5.12.1.5 CUMULATIVE IMPACTS

The area considered for cumulative impacts is the service areas of LACFD fire stations No. 29 and No. 48. The LACFD has indicated that the proposed project, in combination with all other projects currently planned as of February 10, 2023 (the NOP release date), would have a negligible impact on LACFD's ability to provide fire services in the City (Durbin 2023).

Based on the US Green Building Council rates of 2,114 square feet per employee for warehousing land uses and 228 square feet per employee for office uses under 100,000 square feet, the proposed project under Option 1 would generate up to approximately 580 long-term new jobs (USGBC 2008). According to the SCAG forecasts, the City of Irwindale would have 20,300 jobs by 2020 and 21,000 jobs by 2035. However, as of 2020, the City has only 15,229 jobs (US Census Bureau 2023). Therefore, the project jobs associated with the proposed project have been accounted for in SCAG forecasts (SCAG 2016). Other projects in the service area would add residents, workers, visitors, and structures to LACFD's service area, increasing demands for fire services and thus requiring additional LACFD staff, stations, and equipment. LACFD's Facilities Master Plan identifies existing and future LACFD fire station development needs based on the Southern California Association of Governments' population growth projections. Future projects would pay sales taxes, property taxes, and development impact fees; parts of each would be allocated for fire operations and facilities, to implement improvements identified in the Facilities Master Plan. Additionally, any expansions to LACFD facilities would be subject to a project-specific CEQA analysis. Therefore, cumulative impacts would be less than significant, and project impacts would not be cumulatively considerable.

### 5.12.1.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impacts would be less than significant.

### 5.12.1.7 MITIGATION MEASURES

No mitigation measures would be required.

### 5.12.1.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant.

## 5.12.2 Police Protection

The information in this section is based partly on a written service questionnaire response by Chief Christopher Hofford, Irwindale Police Department, dated April 20, 2023. A copy of this response is included in Appendix K of this DEIR.

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#### 5.12.2.1 ENVIRONMENTAL SETTING

##### Regulatory Background

###### *Local*

###### *City of Irwindale Municipal Code*

Chapter 3.50 of the Irwindale Municipal Code states that all development projects in the City are required to pay Development Impact Fees, which are used to fund the acquisition, design, and construction of certain public facilities, including police facilities, necessary to serve new development in the City. Additionally, no developer, property owner, or other person or entity shall be eligible to receive a building Certificate of Occupancy unless such developer, property owner, or other person or entity has first complied with all applicable provisions of this chapter.

##### Existing Conditions

The project site is served by the Irwindale Police Department (IPD). The IPD provides police services throughout Irwindale from its headquarters at 5050 North Irwindale Avenue. The IPD police station is staffed with approximately 38 employees, including 27 sworn police officers (Irwindale 2022). Response times in most areas of the City are five minutes or less (Irwindale 2020).

The IPD police station is approximately 2.8 roadway miles east of the project site. However, officers do not usually respond to calls for service from the station because they are out on patrol throughout the City and mobile throughout the duration of their shifts. Estimated response times for service calls to the project site are seven minutes. Under existing conditions, the project site is undergoing remedial grading operations; therefore, calls for police service to the project site are presumed to be infrequent.

IPD contracts with the Los Angeles County Sheriff's Department, which can provide additional services when needed, including special weapons teams and specialized equipment, through mutual aid agreements with the Azusa Police Department and the Baldwin Park Police Department. Air support services are provided through a contract with the Pasadena Police Department, who manages the Foothill Air Support Team (FAST). Jail bookings are accomplished through a contract for services with the West Covina Police Department and the Baldwin Park Police Department Jail Facilities (Irwindale 2020).

#### 5.12.2.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- PP-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection services.

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### 5.12.2.3 APPLICABLE SPECIFIC PLAN DEVELOPMENT STANDARDS AND DESIGN GUIDELINES

#### Development Standards

There are no Specific Plan development standards pertaining to police services; however, the following relates to on-site safety and security:

- The locations and details of walls and fences internal to the Irwindale Gateway Specific Plan area will be determined in conjunction with development of each building. Internal walls and fences may be provided along the perimeter of parking and loading areas and between building pad areas for screening and security.

#### Design Guidelines

The Irwindale Gateway Specific Plan includes the following design guidelines pertaining to safety and security:

- The maximum height of free-standing, outdoor light fixtures shall be 35 feet. The maximum height for outdoor bollard-type lighting shall be four (4) feet. Overall, light fixtures shall be the minimum height necessary to maintain pedestrian and motorist safety and facilitate site operations and security.
- Illuminate parking lots, loading dock areas, pedestrian walkways, building entrances, and public sidewalks to the level necessary for building operation and security reasons. Dimmers and motion detectors are permitted. Lighting shall have automatic shut off features between dawn and dusk.

### 5.12.2.4 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance regarding police protection services. Unless otherwise noted, the impact analysis applies to both Option 1 and Option 2 development scenarios.

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**Impact 5.12-2: The proposed project would introduce new structures and workers into the Irwindale Police Department service boundaries, thereby increasing the requirement for police protection facilities and personnel. [Threshold PP-1]**

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Development of the proposed project would potentially increase the frequency of police calls to the project site compared to existing conditions. The IPD stated that it would be able to provide police services to the proposed project under both development options and did not identify any additional resources (staff, new or expanded stations, or patrol cars) that would be needed to serve the project site. IPD noted that the type of service demands anticipated from the proposed project would include burglar alarms, thefts/embezzlements, civil disputes, and directed patrols.

Under Options 1 and 2, security would be enhanced by project design; the Irwindale Gateway Specific Plan specifies that walls, fencing, and/or perimeter/monitoring alarm systems would be installed around truck courts and service and loading docks as well as at the BESS under Option 2, which would reduce the potential for crimes such as theft and vandalism. In addition, the proposed project is anticipated to have security gates and guardhouses for trucks and service vehicles. The proposed project would also include outdoor lighting throughout the project site to illuminate the project site and enhance security. During the building permit plan

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### PUBLIC SERVICES

check process, an IPD captain or lieutenant would review the building plans before the City issues a building permit to determine the needs for crime prevention, such as installation of lighting systems, emergency notification systems, and/or crime prevention through environmental design. This preconstruction review process is intended to prevent or deter crime and the demand for police protection services to new developments.

Operation of the proposed project would generate sales taxes and property taxes, some of which would be allocated for the IPD. Project applicants would also pay Development Impact Fees to the City, some of which would be allocated for police services.

Project implementation would not result in or require new or expanded police protection facilities. In addition, no police stations are presently located or are planned to be located on the project site; thus, there is no potential for the proposed project to have a direct physical impact on police protection facilities. Therefore, the proposed project would result in a less-than-significant impact on police protection facilities.

*Level of Significance Before Mitigation:* Impacts would be less than significant.

#### 5.12.2.5 CUMULATIVE IMPACTS

The area considered for cumulative impacts is the IPD's service area, which consists of the City of Irwindale. The IPD has indicated that the proposed project, in combination with all other projects currently planned in the area would have a negligible impact on the IPD's ability to provide police services in the City (Hofford 2023).

Additionally, the population of Irwindale is forecasted to increase by approximately 43 percent (600 persons) between 2012 and 2040, and employment in the City is forecasted to increase by approximately 14 percent (2,700 jobs) (SCAG 2016). Other projects in the service area would add residents, workers, visitors, and structures to IPD's service area, increasing demands for police services and thus requiring additional IPD staff, stations, and equipment. Future projects would pay sales taxes, property taxes, and development impact fees; parts of each would be allocated for police operations and police facilities. Additionally, any expansions to IPD facilities would be subject to a project specific CEQA analysis. Cumulative impacts would be less than significant after payments of such taxes and fees, and project impacts would not be cumulatively considerable.

#### 5.12.2.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impacts would be less than significant.

#### 5.12.2.7 MITIGATION MEASURES

No mitigation measures would be required.

#### 5.12.2.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant.

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### 5.12.3 School Services

#### 5.12.3.1 ENVIRONMENTAL SETTING

##### Regulatory Background

###### *State*

###### *Leroy F. Greene School Facilities Act of 1998 (Senate Bill 50)*

Senate Bill 50 (SB 50) was enacted by the State Legislature in 1998, which amended existing state law governing school fees. In particular, SB 50 amended prior California Government Code Section 65995(a) to prohibit state or local agencies from imposing school impact mitigation fees, dedications, or other requirements in excess of those provided in the statute in connection with “any legislative or adjudicative act...by any state or local agency involving...the planning, use, or development of real property...”

The legislation also amended Government Code Section 65996(b) to prohibit local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any “legislative or adjudicative act [involving] the planning, use or development of real property.” Further, SB 50 established the base amount of allowable developer fees, commonly called “Level 1 fees,” with the same caps that were in place at the time SB 50 was enacted. Level 1 fees are subject to inflation adjustment every two years.

##### Existing Conditions

Public school students in Irwindale are served by seven school districts, the Azusa Unified School District, Baldwin Park Unified School District, Covina-Valley Unified School District, Duarte Unified School District, El Monte Union High/City School District, Monrovia Unified School District, and the West Covina Unified School District. The nearest schools are Olive Middle School, approximately 0.5 mile south of the project site; Walnut Academy, approximately 0.6 mile from the project site; and Margaret Heath Elementary School, approximately 0.8 mile southeast of the project site.

#### 5.12.3.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- SS-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for school services.

#### 5.12.3.3 APPLICABLE SPECIFIC PLAN DEVELOPMENT STANDARDS AND DESIGN GUIDELINES

##### Development Standards

There are no Specific Plan development standards pertaining to school facilities.

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#### Design Guidelines

There are no Specific Plan design guidelines pertaining to library school facilities.

#### 5.12.3.4 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance regarding school services. Unless otherwise noted, the impact analysis applies to both Option 1 and Option 2 development scenarios.

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**Impact 5.12-3: The proposed project would not generate new students and therefore, would not impact the school enrollment capacities of area schools. [Threshold SS-1]**

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The proposed project would consist of an industrial logistics and distribution center and/or BESS. There are no proposed residences on-site. Based on the US Green Building Council rates of 2,114 square feet per employee for warehousing land uses and 228 square feet per employee for office uses under 100,000 square feet, the proposed project under Option 1 would generate up to approximately 580 long-term new jobs (USGBC 2008). According to the SCAG forecasts, the City of Irwindale would have 20,300 jobs by 2020 and 21,000 jobs by 2035. However, as of 2020, the City has only 15,229 jobs (US Census Bureau 2023). The new jobs generated by the Specific Plan would provide additional employment opportunities for residents in the area. However, population growth typically occurs when there is an expansion of residential development, and therefore an increase of new residents. As the Regional Housing Needs Assessment (RHNA) calculated for 2021-2029 has accounted for the housing need in Irwindale and the surrounding cities based on the forecast of 20,300 jobs by 2020, any new growth in population associated with the proposed project would not exceed housing assumptions from the RHNA. Therefore, the proposed project would not result in unaccounted population growth. In addition, no schools are on the project site, nor are any schools planned on the project site; thus, there is no potential for the proposed project to have a direct physical impact on any school.

Although the proposed project would not directly create a demand for additional public school services, the project applicant would be required to contribute fees to Azusa Unified School District, Baldwin Park Unified School District, Covina-Valley Unified School District, Duarte Unified School District, El Monte Union High/City School District, Monrovia Unified School District, and the West Covina Unified School District, in compliance with SB 50, for the purpose of funding the construction or reconstruction of school facilities necessitated by the development (Ed. Code, Section 17620(a)(1). On February 23, 2022, the State Allocation Board adjusted the maximum level one industrial fee to be \$0.78 per square foot. Development fees authorized by SB 50 are deemed by Section 65996 of the California Government Code to be “full and complete school facilities mitigation.”

The impact of the project on school services would therefore be less than significant.

***Level of Significance Before Mitigation:*** Impacts would be less than significant.

#### 5.12.3.5 CUMULATIVE IMPACTS

The impact of the project on school services would be less than significant and would not be cumulatively considerable.

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### 5.12.3.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impacts would be less than significant.

### 5.12.3.7 MITIGATION MEASURES

No mitigation measures would be required.

### 5.12.3.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant.

## 5.12.4 Library Services

### 5.12.4.1 ENVIRONMENTAL SETTING

#### Regulatory Background

##### *Local*

##### *City of Irwindale Municipal Code*

Chapter 3.50 of the Irwindale Municipal Code states that all development projects in the City are required to pay Development Impact Fees, which are used to fund the acquisition, design, and construction of certain public facilities, including library facilities, necessary to serve new development in the City. Additionally, no developer, property owner, or other person or entity shall be eligible to receive a building Certificate of Occupancy unless such developer, property owner, or other person or entity has first complied with all applicable provisions of this chapter.

#### Existing Conditions

Public library services are provided by the Irwindale Public Library, which is owned and operated by the City of Irwindale and is approximately three miles east of the project site.

### 5.12.4.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- LS-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for library services.

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#### 5.12.4.3 APPLICABLE SPECIFIC PLAN DEVELOPMENT STANDARDS AND DESIGN GUIDELINES

##### Development Standards

There are no Specific Plan development standards pertaining to library services and facilities.

##### Design Guidelines

There are no Specific Plan design guidelines pertaining to library services and facilities.

#### 5.12.4.4 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance regarding library services. Unless otherwise noted, the impact analysis applies to both Option 1 and Option 2 development scenarios.

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**Impact 5.12-4: The proposed project would not result in a substantial adverse physical impact associated with the provisions of new or physically altered library facilities, need for new or physically altered library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable performance objectives for library services. [Threshold LS-1]**

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Demand on libraries is based on the resident population. As shown in Impact 5.12-3, the proposed project would not result in unaccounted population growth. Therefore, implementation of the proposed project would not directly create a demand for public library facilities and would not directly result in the need to modify existing library facilities or construct a new library facility. However, the City is currently working on a plan for a new 12,8000-square-foot, single-story City library with associated parking at the Irwindale City Hall campus. Furthermore, project applicants would also pay Development Impact Fees to the City, some of which would be allocated for library facilities. Thus, no direct impact would occur to library services or facilities.

*Level of Significance Before Mitigation:* Impacts would be less than significant.

#### 5.12.4.5 CUMULATIVE IMPACTS

No cumulative impact would occur to library services or facilities.

#### 5.12.4.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impacts would be less than significant.

#### 5.12.4.7 MITIGATION MEASURES

No mitigation measures would be required.

#### 5.12.4.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant.

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### 5.12.5 References

Durbin, Ronald M/ (Chief, Forestry Division Prevention Services Bureau ). 2023, May 25. Questionnaire Response. County of Los Angeles Fire Department.

Hofford, Christopher (chief). 2023, April 20 and June 27. Questionnaire Response. Irwindale Police Department.

Irwindale, City of. 2020. City of Irwindale 2020 General Plan.

———. 2022. Annual Budget Fiscal Year 2022-2023.  
<https://www.irwindaleca.gov/Archive/ViewFile/Item/142>.

Los Angeles County Fire District (LACFD). 2020. Los Angeles County Fire District Facilities Master Plan.  
<https://ceo.lacounty.gov/wp-content/uploads/2021/02/Los-Angeles-County-Fire-District-Facilities-Master-Plan.pdf>.

Southern California Association of Governments (SCAG). 2016. 2016-2040 RTP/SCS Final Growth Forecast by Jurisdiction. [https://scag.ca.gov/sites/main/files/file-attachments/2016\\_2040rtpscs\\_finalgrowthforecastbyjurisdiction.pdf?1605576071](https://scag.ca.gov/sites/main/files/file-attachments/2016_2040rtpscs_finalgrowthforecastbyjurisdiction.pdf?1605576071).

United States Green Building Council (USGBC). 2008. Building Area per Employee by Business Type.

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### **PUBLIC SERVICES**

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### 5.13 TRANSPORTATION

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Irwindale Gateway Specific Plan to result in transportation impacts in the City of Irwindale and its surroundings. The analysis in this section is based in part on the following technical report(s):

- *Irwindale Gateway VMT CEQA Transportation Analysis*, Iteris, January 8, 2024
- *Irwindale Gateway Specific Plan Traffic Impact Analysis*, Iteris, December 19, 2023

Complete copies of these studies are in the technical appendices to this Draft EIR as Appendix L1 and Appendix L2, respectively.

#### 5.13.1 Environmental Setting

##### 5.13.1.1 REGULATORY BACKGROUND

###### State

###### *Senate Bill 743*

On September 27, 2013, Senate Bill (SB) 743 was signed into law. The legislature found that with the adoption of SB 375, the state had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce vehicle miles traveled (VMT) and thereby contribute to the reduction of greenhouse gas (GHG) emissions, as required by Assembly Bill (AB) 32. Additionally, AB 1358, described below, requires local governments to plan for a balanced, multimodal transportation network that meets the needs of all users.

SB 743 started a process that fundamentally changes transportation impact analysis as part of California Environmental Quality Act (CEQA) compliance. These changes include the elimination of auto delay, level of service (LOS), and similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts in many parts of California (if not statewide). As part of the new CEQA Guidelines, the new criteria “shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses” (California Public Resources Code Section 21099[b][1]). On January 20, 2016, the Governor’s Office of Planning and Research released proposed revisions to its CEQA Guidelines for the implementation of SB 743, with alternative metrics and thresholds based on VMT. The guidelines were certified by the Secretary of the Natural Resources Agency in December 2018, and automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, is no longer considered a significant impact on the environment. Since July 1, 2020, lead agencies are required to consider VMT as the metric for determining transportation impacts under CEQA. The guidance provided for VMT significance criteria pertains primarily to land use projects, such as residential, office, and retail uses.

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#### *Assembly Bill 1358: The California Complete Streets Act*

The California Complete Streets Act (AB 1358) of 2008 was signed into law on September 30, 2008. Beginning January 1, 2011, AB 1358 requires circulation elements to address the transportation system from a multimodal perspective. The bill states that streets, roads, and highways must “meet the needs of all users in a manner suitable to the rural, suburban, or urban context of the general plan.” Essentially, this bill requires a circulation element to plan for all modes of transportation where appropriate, including walking, biking, car travel, and transit.

The Complete Streets Act also requires circulation elements to consider the multiple users of the transportation system, including children, adults, seniors, and the disabled. AB 1358 tasked the Office of Planning and Research to release guidelines for compliance, which are so far undeveloped.

#### *Sustainable Communities and Climate Protection Act*

The Sustainable Communities and Climate Protection Act (SB 375) was signed into law on September 30, 2008. The SB 375 regulation provides incentives for cities and developers to bring housing and jobs closer together and to improve public transit. The goal behind SB 375 is to reduce automobile commuting trips and length of automobile trips, thus helping to meet the statewide targets for reducing GHG emissions set by the California Global Warming Solutions Act of 2006 (AB 32). SB 375 requires each metropolitan planning organization to add a broader vision for growth, called a “sustainable communities strategy” (SCS), to its regional transportation plan. The SCS must lay out a plan to meet the region’s transportation, housing, economic, and environmental needs in a way that enables the area to lower greenhouse gas emissions. The SCS should integrate transportation, land use, and housing policies to plan for achievement of the regional emissions target.

## Regional

#### *Southern California Association of Governments*

The Southern California Association of Governments (SCAG) is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. SCAG is the federally recognized metropolitan planning organization for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. SCAG cooperates with South Coast AQMD, Caltrans, and other agencies to prepare regional planning documents to achieve specific regional objectives.

#### *Regional Transportation Plan/Sustainable Communities Strategy*

SCAG’s Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) provides a regional transportation plan for six counties in Southern California: Orange, San Bernardino, Riverside, Los Angeles, Ventura, and Imperial. The primary goal of the RTP/SCS is to increase mobility for the region. With recent

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legislation, this plan also encompasses sustainability as a key principle in future development. Current and recent transportation plan goals generally focus on balanced transportation and land use planning that:

- Maximize mobility and accessibility for all people and goods in the region.
- Ensure travel safety and reliability for all people and goods in the region.
- Preserve and ensure a sustainable regional transportation system.
- Maximize the productivity of our transportation system.
- Protect the environment and health of residents by improving air quality and encouraging active transportation (e.g., bicycling and walking).
- Encourage land use and growth patterns that facilitate transit and active transportation.

On September 3, 2020, SCAG’s Regional Council unanimously voted to approve and fully adopt *Connect SoCal: The 2020-2045 Regional Transportation Plan / Sustainable Communities Strategy of the Southern California Association of Governments* (2020–2045 RTP/SCS or Connect SoCal), and the addendum to the Connect SoCal Program Environmental Impact Report. Connect SoCal is a long-range visioning plan that builds on and expands land use and transportation strategies established over several planning cycles, including SCAG’s 2016 RTP/SCS, to increase mobility options and achieve a more sustainable growth pattern. The 2020–2045 RTP/SCS focuses on the continued efforts of the previous RTP/SCSs for an integrated approach in transportation and land use strategies in development of the SCAG region through horizon year 2045. It projects that the SCAG region will meet the GHG per-capita reduction targets established for the SCAG region of 19 percent by 2035. Additionally, it is projected that implementation of the plan will reduce VMT per capita for year 2045 by 4.1 percent compared to baseline conditions for the year. The 2020–2045 RTP/SCS includes a “core vision” that centers on maintaining and better managing the transportation network for moving people and goods while expanding mobility choices by locating housing, jobs, and transit closer together and increasing investments in transit and complete streets.

### Local

#### *City of Irwindale Active Transportation Plan*

The purpose of the Irwindale Active Transportation Plan (ATP) is to guide the development of pedestrian and bicycle infrastructure and programs in Irwindale. The ATP ultimately supports and implements a fully integrated network accommodating all transportation modes, with a special focus on improving pedestrian connections to key destinations citywide. The ATP also includes design guidelines for pedestrian and bicycle facilities to ensure that development of the bicycle and pedestrian network uses national best practices and reflects the City’s unique history and character. Policies from the ATP that apply to the proposed project include:

- **Policy A.7.** Encourage the provision of secure bicycle parking at employment centers, commercial centers, recreational amenities, and civic amenities.

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- **Policy D.4.2.** Encourage new development to include pedestrian-oriented improvements.
- **Policy D.4.3.** Consider requiring new development to provide sidewalks in Pedestrian Priority Areas (Irwindale 2021).

#### *City of Irwindale Municipal Code*

- **Chapter 17.66.030 Trip Reduction and Travel Demand Measures:** This chapter delineates requirements for nonresidential development related to nonautomobile supportive programs and infrastructure. Each of the following three sections relate to nonresidential development by progressive square footage that would apply to the proposed project:

- 1) Nonresidential development of twenty-five thousand square feet or more shall provide the following to the satisfaction of the city:
  - a. A bulletin board, display case or kiosk displaying transportation information located where the greatest number of employees are likely to see it. Information in the area shall include, but is not limited to, the following:
    - i. Current maps, routes and schedules for public transit routes serving the site;
    - ii. Telephone numbers for referrals on transportation information including numbers for the regional ridesharing agency and local transit operators;
    - iii. Ridesharing promotional material supplied by commuter-oriented organizations;
    - iv. Bicycle route and facility information, including regional/local bicycle maps and bicycle safety information;
    - v. A listing of facilities available at the site for carpoolers, vanpoolers, bicyclists, transit riders and pedestrians.
- 2) Nonresidential development of fifty thousand square feet or more shall comply with subsection (B)(1) of this section, and shall provide all of the following measures to the satisfaction of the city:
  - a. Not less than ten percent of employee parking area(s) shall be located as close as is practical to the employee entrance(s) and shall be reserved for use by potential carpool/vanpool vehicles, without displacing handicapped and customer parking needs. This preferential carpool/vanpool parking area shall be identified on the site plan upon application for a building permit, to the satisfaction of the city. A statement that preferential carpool/vanpool spaces for employees are available and a description of the method for obtaining access to such spaces must be included on the required transportation information board. Spaces will be signed/striped as demand warrants; provided that at all times at least one space for projects fifty thousand square feet to one hundred thousand

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square feet and two spaces for projects over one hundred thousand square feet will be signed/striped for carpool/vanpool vehicles.

- b. Preferential parking spaces reserved for vanpools must be accessible to vanpool vehicles. When located within a parking structure, a minimum vertical interior clearance of seven feet two inches shall be provided for such spaces and accessways to be used by such vehicles. Adequate turning radii and parking space dimensions shall also be included in vanpool parking areas.
  - c. Bicycle racks or other secure bicycle parking shall be provided to accommodate four bicycles per the first fifty thousand square feet of nonresidential development and one bicycle per each additional fifty thousand square feet of nonresidential development. Calculations which result in a fraction of 0.5 or higher shall be rounded up to the nearest whole number.
- 3) Nonresidential development of one hundred thousand square feet or more shall comply with subsections (B)(1) and (2) of this section, and shall provide all of the following measures to the satisfaction of the city:
- a. A safe and convenient zone in which vanpool and carpool vehicles may deliver or board their passengers;
  - b. Sidewalks or other designated pathways following direct and safe routes from the external pedestrian circulation system to each building in the development;
  - c. 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;
  - d. Safe and convenient access from the external circulation system to bicycle parking facilities on-site.
- **Chapter 17.66.040 Monitoring:** This chapter describes how the City ensures compliance with the required trip reduction and travel demand measures through a monitoring program during project implementation. The project applicant is required to demonstrate compliance with each measure in a written report submitted to the City prior to the issuance of a building permit and show compliance prior to the issuance of a Certificate of Occupancy. Applicants may be required to provide periodic reports regarding compliance with such measures.

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#### 5.13.1.2 EXISTING CONDITIONS

##### **Vehicular Access and Circulation**

The 66.64-acre Irwindale Gateway Specific Plan area is at 13620 Live Oak Lane in the central portion of Irwindale. As shown on Figure 3-3, *Aerial Photograph*, regional access to the project area is provided by State Route 210 (SR-210) and Interstate 605 (I-605). Local roadways providing access to the project area include Arrow Highway, Live Oak Avenue, Live Oak Lane, and Rivergrade Road.

Arrow Highway is a four- to six-lane divided secondary highway in the project area, generally oriented east-west, and providing access to I-605. On-street parking is generally prohibited on both sides of the roadway. Arrow Highway is a designated truck route.

Live Oak Avenue is a five-lane divided major roadway, generally oriented east-west, with two westbound travel lanes and three eastbound travel lanes in the vicinity of the project site and providing access to I-605. Live Oak Avenue is a designated truck route. On-street parking is generally prohibited on both sides of the roadway.

Live Oak Lane is a two-lane undivided collector/private road in the project vicinity, generally oriented north-south, and providing access to commercial and industrial land uses. On-street parking is generally prohibited on both sides of the roadway.

Rivergrade Road is a four-lane undivided local street in the vicinity of the project site and generally oriented east-west. On-street parking is generally prohibited on both sides of the roadway.

##### **Alternative Modes of Travel**

###### *Bicycle and Pedestrian Systems*

The San Gabriel River Trail runs north-south to the east of the project site between Live Oak Lane and Rivergrade Road. The trail runs under Live Oak Avenue and crosses Arrow Highway at an at-grade signalized intersection. The San Gabriel Trail is a Class I<sup>1</sup> bicycle facility and a major regional bikeway that provides connections to communities to the south of Irwindale. There are no other trails in the vicinity of the project site (see Figure 5.13-1, *Existing Multimodal Network*).

There are discontinuous sidewalks along Arrow Highway and Live Oak Avenue. The sidewalk on the south side of Arrow Highway terminates approximately 170 feet to the east of Live Oak Lane. There is a sidewalk on the north side of Live Oak Avenue from the San Gabriel River Trail to Live Oak Lane and on the south side of Live Oak Avenue from the San Gabriel River Trail to Graham Road. Access to the San Gabriel River Trail is available from the sidewalks on both the north and south sides of Live Oak Avenue. There is a crosswalk on the east side of the Live Oak Avenue/Graham Road intersections crossing Live Oak Avenue. There is no sidewalk along Live Oak Lane.

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<sup>1</sup> Class I bike paths, also known as multiuse paths, are separated completely from motor vehicle traffic and usually shared with pedestrians.

### 5. Environmental Analysis Figure 5.13-1 - Existing Multimodal Network



- LEGEND**
- Project Site Boundary
  - City of Irwindale Boundary
  - Other Area Boundary
  - Major Roads
  - Gold Line Station
  - Metrolink Station
  - Rail Line (Metrolink or Freight)
  - Foothill Bus Route
  - LA Metro Bus Route
  - San Gabriel River Trail
  - Class II Bikeway - Ramona Blvd.
  - Class I Multi-Use Path - Other Juris.
  - Class II Bikeway - Other Jurisdiction
  - Class III Bikeway - Other Jurisdiction
  - Major Activity Node

0 1  
Scale (Miles)



Source: PlaceWorks, 2021.

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#### *Public Transit*

As shown on Figure 5.13-1, Foothill Transit Line 492 (Montclair–Arcadia–El Monte via Arrow Highway) stops at Live Oak Avenue and Stewart Avenue and passes the southern border of the project site along Live Oak Avenue. The frequency of service is every half hour from 5:30 am to 11:00 pm. Additionally, Foothill Transit Line 272 (Duarte–Baldwin Park–West Covina) has stops at Live Oak Avenue / Stewart Avenue and Rivergrade Road / Arrow Highway and passes the northern border of the project site along Arrow Highway. The frequency of service is hourly from 5:30 am to 9:00 pm.

### 5.13.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- T-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
- T-2 Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b).
- T-3 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- T-4 Result in inadequate emergency access.

### 5.13.3 Applicable Specific Plan Development Standards and Design Guidelines

The circulation plan for the Irwindale Gateway Specific Plan provides a roadway network to meet the vehicular and nonvehicular needs of employees and visitors and for the transportation of goods to and from the project area.

#### 5.13.3.1 DEVELOPMENT STANDARDS

##### **Vehicular Circulation Network**

The proposed vehicular circulation network shown on Figure 3-10a, *Conceptual Circulation Plan Option 1*, and 3-10b, *Conceptual Circulation Plan Option 2*, includes the following proposed improvements:

- **Live Oak Avenue.** In its fully improved condition, the segment of Live Oak Avenue abutting Irwindale Gateway would feature a 102-foot-wide right-of-way (ROW), including 34 feet of pavement in the east travel lane (two lanes), 34 feet of pavement in the west travel lane (two lanes), a 12-foot-wide raised center median, curb and gutter improvements, and an 8-foot-wide sidewalk on the south side of the street. As part of Irwindale Gateway's development, a 5-foot-wide meandering sidewalk and a minimum 20-foot-wide landscaped parkway would be constructed along the north side of Live Oak Avenue. The existing travel lanes would remain. Live Oak Avenue is a designated truck route. On-street parking is generally prohibited on both sides of the roadway. All frontage improvements to Live Oak Avenue must comply with applicable City of Irwindale standards, including sight distance requirements. Live Oak Lane connects

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to Live Oak Avenue. One direct driveway would connect to Live Oak Avenue at the signalized intersection with Graham Road. The Live Oak Avenue / Live Oak Lane intersection shall become signalized to alleviate the additional traffic delay generated by the new developments.

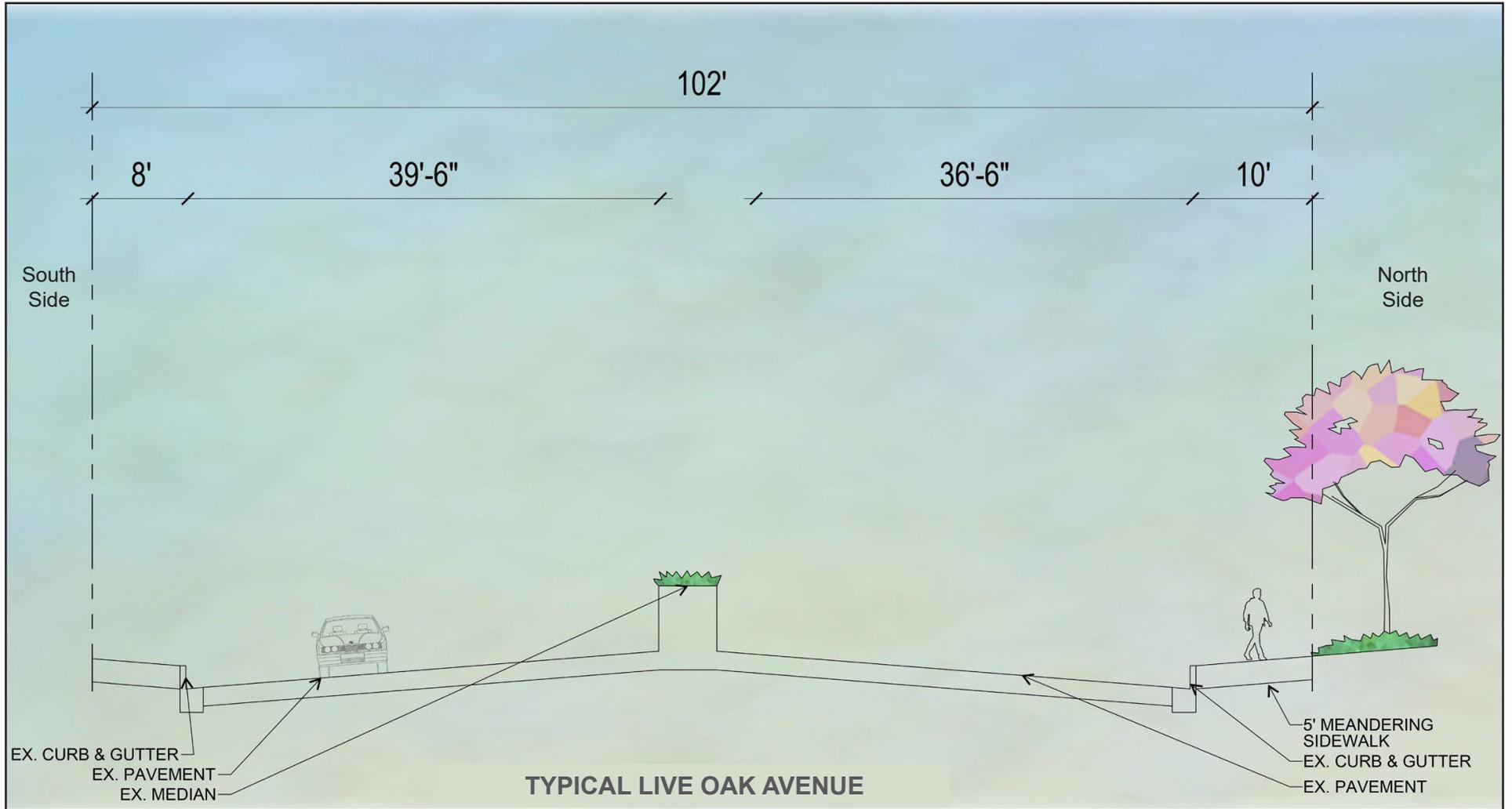
- **Arrow Highway.** The segment of Arrow Highway abutting Irwindale Gateway is improved with a 102-foot-wide ROW, including 35 feet of pavement in each direction (two lanes), a 14-foot-wide raised center median, an existing 8-foot-wide sidewalk/landscaped parkway on the north side of the street, and a 5-foot-wide sidewalk on the south side of the street. The Specific Plan would not have direct vehicular access to Arrow Highway. Instead, two project driveways provide access to Live Oak Lane on the north side of the project site, which provides access to Arrow Highway at an unsignalized right-in-right-out intersection. Arrow Highway is a designated truck route. All frontage improvements to Arrow Highway must comply with applicable City of Irwindale standards, including sight distance requirements.
- **Live Oak Lane.** Live Oak Lane is accessible from public streets and provides the primary ingress and egress for all development in the Specific Plan area. Portions of Live Oak Lane would be improved to a public street and offered for dedication to the City. Once improved, Live Oak Lane would have a 60-foot-wide ROW with 40 feet of pavement and 5 feet of parkway and 5 feet of sidewalks on either side of the street. The remaining portion of the existing Live Oak Lane, which does not abut the Specific Plan area, would be offered for dedication as a public alley, consistent with the proposed Tentative Parcel Map. The Live Oak Avenue / Live Oak Lane intersection would be signalized to alleviate the additional traffic delay generated by the new developments.
- **Private Driveways and Drive Aisles.** Interior private driveways and drive aisles are proposed to connect individual building sites in the project site and provide vehicular access to Live Oak Lane. Private driveways and drive aisles provide vehicular access for automobiles and trucks to parking lots, truck courts, loading dock areas, etc. The locations, alignments, and widths of private driveways and drive aisles will be determined at the time buildings are designed and positioned as part of implementing development projects and are subject to approval of the City Engineer.

Proposed cross-sections for the proposed roadways are shown on Figure 5.13-2, *Live Oak Avenue Streetscape*, and Figure 5.13-3, *Live Oak Lane Streetscape*.

### Nonvehicular Circulation Network

The nonvehicular circulation network provides convenient pedestrian movement within the specific plan area. Pedestrian circulation is encouraged in the Specific Plan area through an integrated sidewalk network that would be designed on individual building sites. As illustrated on Figure 5.13-4a, *Conceptual Nonvehicular Circulation and Mobility Plan Option 1*, and Figure 5.13-4b, *Conceptual Nonvehicular Circulation and Mobility Plan Option 2*, a minimum 5-foot-wide sidewalk would be provided along both sides of Live Oak Lane to facilitate pedestrian circulation between Arrow Highway and Live Oak Avenue. A 5-foot-wide meandering public sidewalk and a minimum 20-foot-wide landscaped parkway would also be provided on the north side of the portion of Live Oak Avenue that abuts the project site. A third sidewalk and parkways are proposed along the south side of Arrow Highway.

5. Environmental Analysis  
Figure 5.13-2 - Live Oak Avenue Streetscape



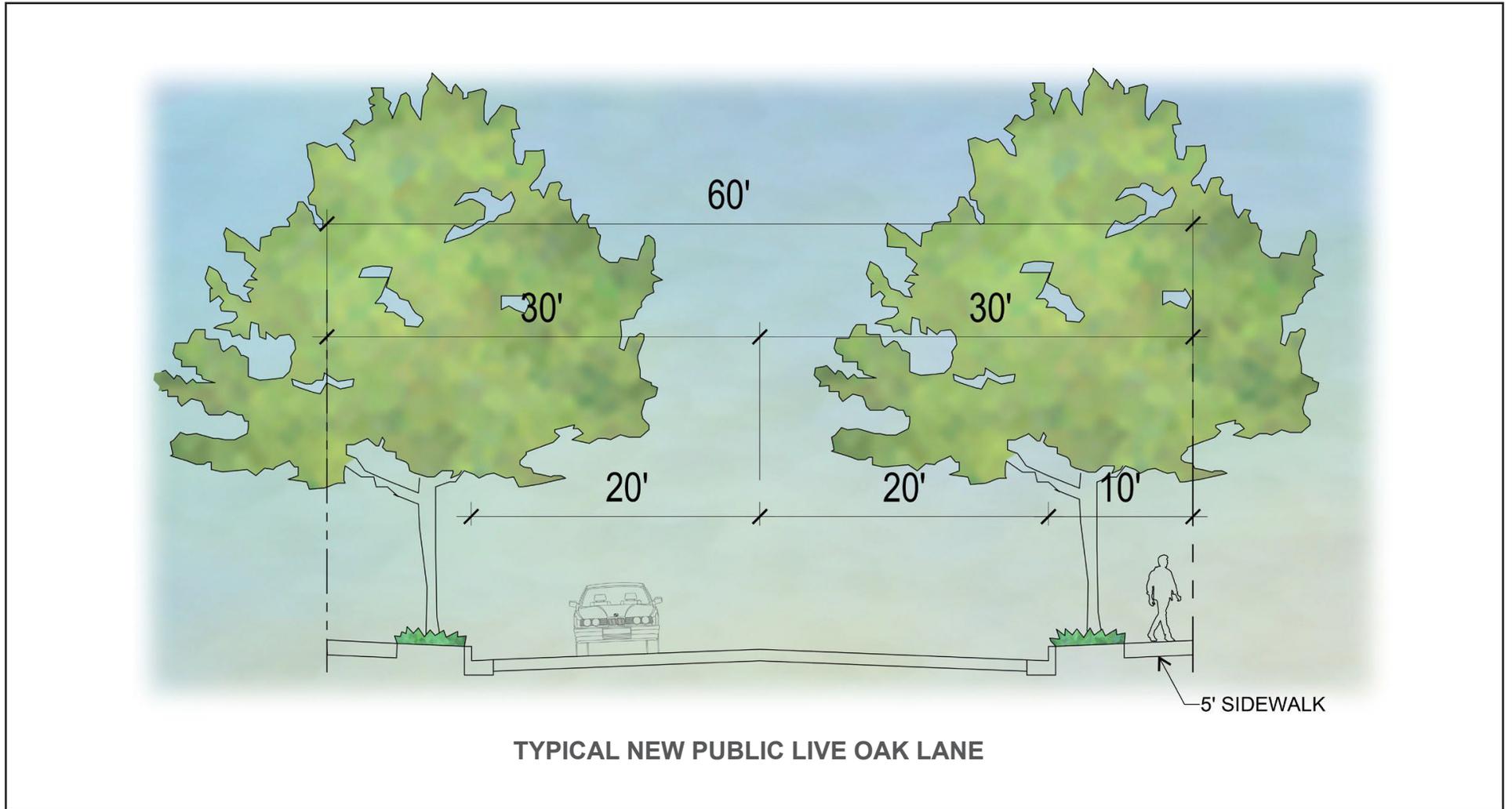
Source: Sagecrest Planning + Environmental, 2023.

## 5. Environmental Analysis

### TRANSPORTATION

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5. Environmental Analysis  
Figure 5.13-3 - Live Oak Lane Streetscape



TYPICAL NEW PUBLIC LIVE OAK LANE

0 10  
Scale (Feet)

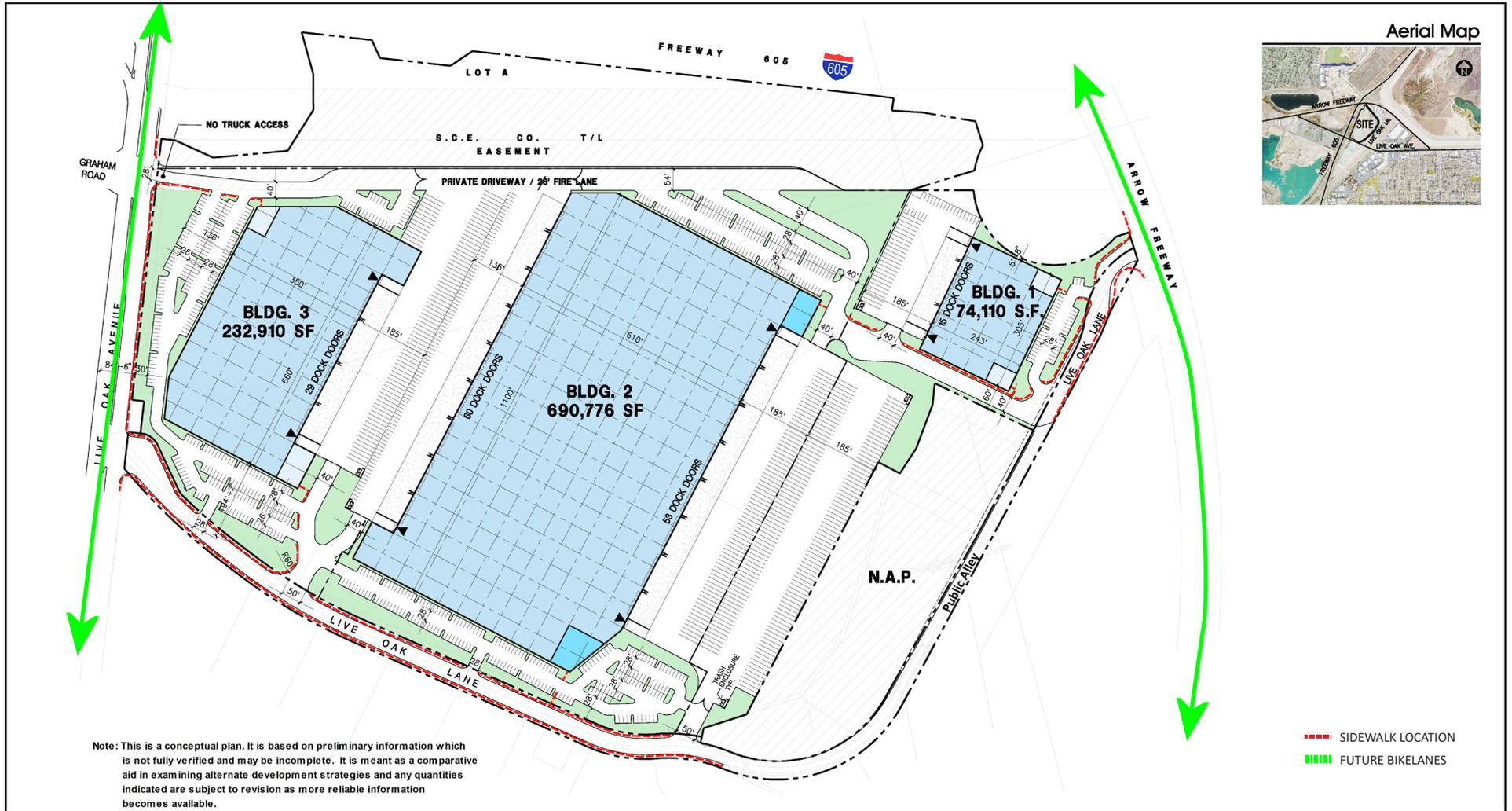
## 5. Environmental Analysis

### TRANSPORTATION

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5. Environmental Analysis

Figure 5.13-4a - Conceptual Non-Vehicular Circulation and Mobility Plan Option 1



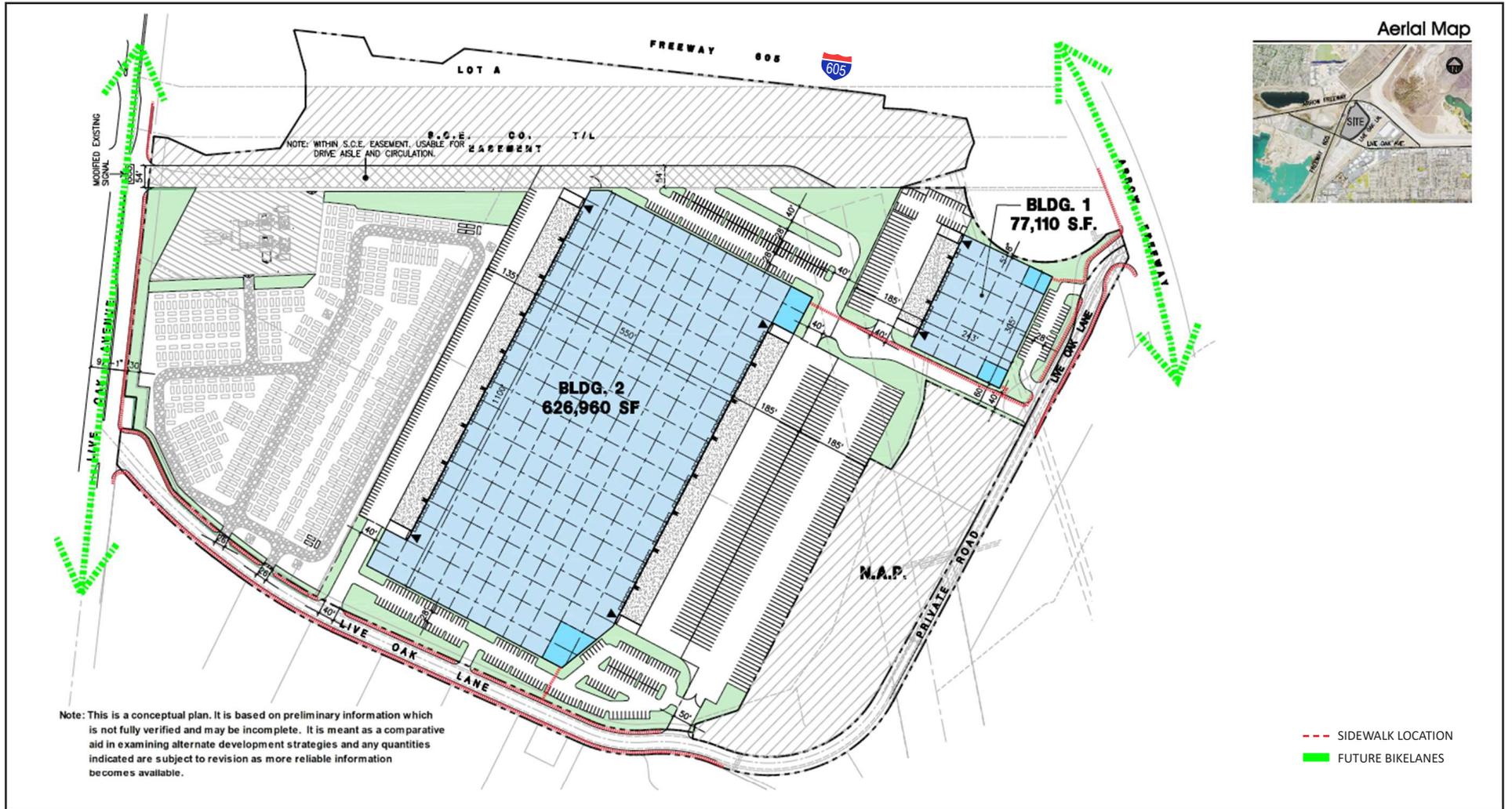
## 5. Environmental Analysis

### TRANSPORTATION

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5. Environmental Analysis

Figure 5.13-4b - Conceptual Non-Vehicular Circulation and Mobility Plan Option 2



Source: KEARNY, 2023.

## 5. Environmental Analysis

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## 5. Environmental Analysis TRANSPORTATION

### Roadway Infrastructure Improvements

The following are required for all development projects in the Specific Plan area:

- 1) Each development project shall be responsible for installing fronting roadway improvements and infrastructure.
- 2) Live Oak Lane shall be improved prior to completion of the first development project and issuance of a Certificate of Occupancy.
- 3) The traffic signal at the intersection of Live Oak Lane and Live Oak Avenue shall be completed prior to completion of the first development project and issuance of a Certificate of Occupancy.
- 4) Prior to issuance of building permits for development projects that involve a driveway connection point on Live Oak Avenue, the Project Applicant shall submit a driveway access study to the City of Irwindale Public Works Department for City review and approval. The study shall be prepared by a licensed traffic engineer, identify the proposed access driveway(s) connecting to a public street, and include a detailed evaluation of the proposed driveway for intersection lane geometrics, turn lane storage capacity, and sight distance. The City shall require that the driveway intersection be constructed in accordance with the City-approved access study prior to the issuance of a Certificate of Occupancy for any building that would use the driveway for ingress/egress.
- 5) Prior to the issuance of each building permit, the Project Applicant shall submit a preliminary trip generation calculation and trip distribution exhibit to the City of Irwindale Public Works Department for the development project under consideration for City review and approval. The preliminary calculation and exhibit shall be prepared by a licensed traffic engineer and be accompanied by sufficient analytical data to enable the City to determine (a) which of the mitigation measures identified in Irwindale Gateway Specific Plan's EIR and Traffic Study are applicable to the implementing project and calculate the fair share percentage associated with each applicable respective mitigation measure, (b) sufficient intersection and driveway geometrics and lane storage and turn lane capacity needs. The City Engineer shall have the authority to determine the extent of the traffic study and analyses required to determine the appropriate mitigation measures and fair share calculations if applicable. Traffic analyses shall utilize traffic counts collected within 12 months of the analysis. Speculative buildings without an occupant or tenant shall be analyzed in accordance with the proposed uses and trip generations rates listed in Irwindale Gateway Specific Plan's Traffic Impact Report.

Prior to the issuance of building permits, fair-share payments towards improvements may include, but not be limited to, the proposed intersection at Live Oak Avenue and Lake Oak Lane.

- 6) If the total trips generated by all developments in the Specific Plan area exceeds the trips analyzed in the Irwindale Gateway Specific Plan's Traffic Impact Analysis prepared by Iteris and dated May 1, 2023, an additional full Traffic Impact Analysis shall be required.

## 5. Environmental Analysis

### TRANSPORTATION

#### 5.13.3.2 DESIGN GUIDELINES

The Irwindale Gateway Specific Plan includes the following design guidelines pertaining to transportation:

- The maximum height of free-standing, outdoor light fixtures shall be 35 feet. The maximum height for outdoor bollard-type lighting shall be 4 feet. Overall, light fixtures shall be the minimum height necessary to maintain pedestrian and motorist safety and facilitate site operations and security.
- Illuminate parking lots, loading dock areas, pedestrian walkways, building entrances, and public sidewalks to the level necessary for building operation and security reasons. Dimmers and motion detectors are permitted. Lighting shall have automatic shut-off features between dawn and dusk.
- No direct loading or unloading activity is permitted to take place from Live Oak Avenue, Arrow Highway, or Live Oak Lane. Trucks and service vehicles shall have clear and convenient access into and within truck courts or loading areas of every building within Irwindale Gateway and should not disrupt vehicular and pedestrian circulation.
- Separate loading docks and truck courts from visitor and customer parking areas and pedestrian circulation areas (e.g., walkways) utilizing walls, fences, and/or landscaping.
- Design truck and service vehicle entries to provide clear and convenient access to truck courts and loading areas such that passenger vehicle, pedestrian, and bicycle circulation are not adversely affected.

#### 5.13.4 Environmental Impacts

##### 5.13.4.1 METHODOLOGY

###### LOS Analysis

Traffic operations were evaluated for each of the following scenarios during the weekday AM (7–9am) and PM (4–6pm) peak hours during typical weekday conditions:

- Existing Conditions
- Buildout Year (2028) Without Project Conditions
- Buildout Year (2028) With Project Conditions
- Horizon Year (2040) Without Project Conditions
- Horizon Year (2040) With Project Conditions

The existing conditions represent the current traffic operations in the project vicinity in Year 2023. Buildout Year and Horizon Year Without Project conditions assume completion of all surrounding projects in addition to ambient growth. Buildout Year and Horizon Year With Project conditions assume full completion of the proposed project.

## 5. Environmental Analysis TRANSPORTATION

The Traffic Impact Analysis analyzed 19 intersections (see Appendix L2). The study intersections were selected based on the City of Irwindale's Impact Analysis Guidelines, which require analysis of intersections where the proposed project is anticipated to contribute 50 or more peak-hour trips.

### VMT Analysis

For purposes of CEQA compliance, a VMT analysis is required for land use projects, as deemed necessary by the City traffic engineer, and applies to projects that have the potential to increase the baseline VMT per employment population for the city.

VMT analysis consists of a screening analysis that determines if a project needs project-level assessment and a full VMT assessment for nonscreened projects. The San Gabriel Valley Council of Governments (SGVCOG) worked with member agencies (including the City of Irwindale) to analyze existing traffic conditions in the region to develop a baseline standard that determines significance CEQA thresholds for future land use projects. SGVCOG then developed a web-based VMT Evaluation Tool based on VMT data from SCAG's Travel Demand Model. The VMT assessment for the proposed project was conducted using the SGVCOG VMT Evaluation Tool.

The proposed project does not meet any screening criteria defined by the City of Irwindale:

- Located in a transit priority area.<sup>2</sup>
- Located in a low-VMT-generating area.
- A type of project identified by the City that could be presumed to be less than significant.

Therefore, a project-level VMT analysis was conducted.

The proposed project would result in a significant impact for project-generated VMT if the following condition is satisfied:

- The baseline project-generated VMT per work-based trip per employee exceeds 15 percent below the City's baseline.

The analysis is a Baseline (Year 2023) plus Project assessment of project VMT. Given the modest scale of the proposed project in terms of Citywide VMT, the Baseline plus Project VMT is equivalent to Cumulative plus Project VMT because the expected origins, destinations, or trip lengths of site-related light-duty vehicles would not be expected to alter due to future area transportation system conditions. This analysis may overestimate the project's effect on VMT but is a considered conservative analysis.

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<sup>2</sup> A TPA is defined as an area with a half-mile radius around an existing major transit stop or an existing stop along a high-quality transit corridor. A high-quality transit corridor is a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

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The following VMT reduction elements were included in the project-level analysis as project components, consistent with the multimodal infrastructure and services that serve the project site and Chapter 17.66.030 and 11.77.04 of the City's municipal code (see Section 5.13.1.1):

- 1) Construction of a proposed 750-foot-long, five-foot-wide, meandering public sidewalk and minimum 20-foot-wide landscaped parkway on the north side of the portion of Live Oak Avenue that abuts the project site.
- 2) The dedication of a total of 2,160 feet of Live Oak Lane (529 feet and 1,631 feet along the northern and southern portions of Live Oak Lane, respectively) along the proposed project's frontage to improve the street to the City's standard of 60 feet.
- 3) Construction of proposed 5-foot-wide sidewalks, at a minimum, along both sides of Live Oak Lane and 5-foot-wide landscaped setbacks along the portion of Live Oak Lane that abuts the project site.
- 4) Installation of a proposed traffic signal at the intersection of Live Oak Lane and Live Oak Avenue.
- 5) Installation of five proposed public streetlights along the north side of Live Oak Lane abutting the project site and eight public streetlights along the east side of Live Oak Lane abutting the project site.
- 6) Construction of a proposed meandering sidewalk and parkway along the south side of Arrow Highway.
- 7) Provision of carpool/vanpool infrastructure.
- 8) Provision of 23 bicycle parking spaces.

#### 5.13.4.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the Notice of Preparation disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.13-1: Development accommodated by the Specific Plan would not result in a conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. [Threshold T-1]**

---

As shown on Figures 3-6a and b, *Conceptual Land Use Plan*, and Figures 3-10a and b, *Conceptual Circulation Plan*, vehicular access to the proposed project would be provided via Live Oak Avenue and Live Oak Lane. Up to seven proposed driveways would be located along Live Oak Lane, which connects to Live Oak Avenue at an unsignalized intersection to the south of the project site. There is an existing driveway on Live Oak Avenue which would remain. An internal driveway system would connect the parcels within the site.

## 5. Environmental Analysis

### TRANSPORTATION

#### Impact to Roadway Facilities

The City's General Plan Infrastructure Element promotes the continued development and enhancement of existing streets and intersections in the city. Policies strive to ensure that new development projects implement a fair share of infrastructure improvements to offset potential adverse impacts associated with additional traffic. The goal of these policies is to improve safe and efficient circulation in the city. As described in Section 5.13.1.1 regarding Senate Bill 743, roadway level of service is no longer under the purview of CEQA and therefore is not addressed in this EIR. However, the City of Irwindale still implements LOS standards under its local regulatory land use and public works authority. The full Traffic Impact Assessment in Appendix L2 provides this analysis. As stated in the appendix, the intersection of Live Oak Avenue and Live Oak Lane was found to be impacted by the proposed project for Buildout Year (2028) and Horizon Year (2040) during the AM and PM peak hours, operating at LOS F under these scenarios. To address this delay, the proposed project would be required, as a condition of approval, to signalize the intersection, which would allow it to operate at LOS C and LOS B in the Buildout Year (2028) With Project conditions for Option 1 and Option 2, respectively, in compliance with the City's standards. The proposed project would also comply with the City's roadway and intersections design and engineering standards. The project would be consistent with programs, plans, policies, and ordinances governing roadways.

#### Impact to Alternate Modes of Transportation Facilities

The proposed project would include a 750-foot-long, 5-foot-wide meandering public sidewalk and minimum 20-foot-wide landscaped parkway on the north side of the portion of Live Oak Avenue that abuts the project site. The proposed project also includes a proposed minimum 5-foot-wide sidewalk along both sides of Live Oak Lane and 10-foot-wide landscaped setbacks along the section of Live Oak Lane that abuts the project site. The existing sidewalk along the south side of Arrow Highway would be repaired as required by the City. The proposed project would also provide 23 bicycle parking spaces.

The City of Irwindale prepared an active transportation plan in January 2021 to develop pedestrian and bicycle infrastructure and programs in Irwindale. The adopted ATP includes design guidelines for pedestrian and bicycle facilities to ensure that development of the bicycle and pedestrian network would use national best practices and reflect the City's unique history and character. The proposed project does not propose alterations to existing or proposed bicycle and pedestrian conditions (see Figure 5.13-5, *Existing and Proposed Bikeways*). Project roadways would be constructed in accordance with City engineering standards, including the City's Active Transportation Guidelines. Both Arrow Highway and Live Oak Avenue are "bicycle priority corridors" in the City's ATP. The proposed project would not impact proposed new bicycle facilities along these roadways. Therefore, the proposed project would not obstruct the implementation of the ATP.

Additionally, the ATP supports employer-based encouragement programs to provide amenities and incentives that encourage employees to walk and bike to work, including walking/bicycling trips that are "first/last mile" connections to transit. Coordination between transit routes and active transportation infrastructure, including enhanced sidewalks, improves first/last-mile commutes and expands connectivity (Irwindale 2021). As shown on Figure 5.13-1, Foothill Transit Line 492 stops at Live Oak Avenue and Stewart Avenue and passes the southern border of the project site along Live Oak Avenue. The proposed project includes new sidewalks and

## 5. Environmental Analysis TRANSPORTATION

23 bicycle parking spaces that would encourage the use of this bus stop. Pursuant to Chapter 17.66.030 of the municipal code, the proposed project would also include a bulletin board, display case, or kiosk displaying transportation information located where the greatest number of employees are likely to see it. Information would include current maps, routes, and schedules for public transit routes serving the site, and numbers for local transit operators. As such, the proposed project would not result in a conflict with the ATP as it relates to transit services.

*Level of Significance Before Mitigation:* Less than significant.

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**Impact 5.13-2: Development accommodated by the Specific Plan would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). [Threshold T-2]**

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Both Options 1 and 2 of the Irwindale Gateway Specific Plan include proposed development of industrial warehousing, associated parking, and loading docks. The project site is currently a vacant lot that is used for a variety of industrial and commercial uses as well as stockpiled materials and debris. Option 1 includes the development of 954,796 square feet of warehouse space and 43,000 square feet of office space. A variety of general warehousing and manufacturing tenants could be accommodated in the three buildings. Option 2 would include two industrial buildings providing 668,070 square feet of warehouse space and 36,000 square feet of office space. Additionally, this option would include a 400-megawatt battery energy storage system (BESS) on approximately 16 acres.

As shown in Table 5.13-1, *Project VMT Characteristics*, the proposed project would result in 20.8 daily VMT per employee for both Options 1 and 2, which would exceed the City's threshold of 18.5 daily VMT per employee. Therefore, impacts would be potentially significant without mitigation.

**Table 5.13-1 Project VMT Characteristics**

VMT Geography	No VMT Reduction Elements	With VMT Reduction Elements
City Average	21.76	21.76
Threshold	18.50	18.50
Option 1	20.8	18.4
Option 2	20.8	18.4

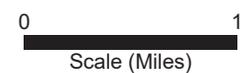
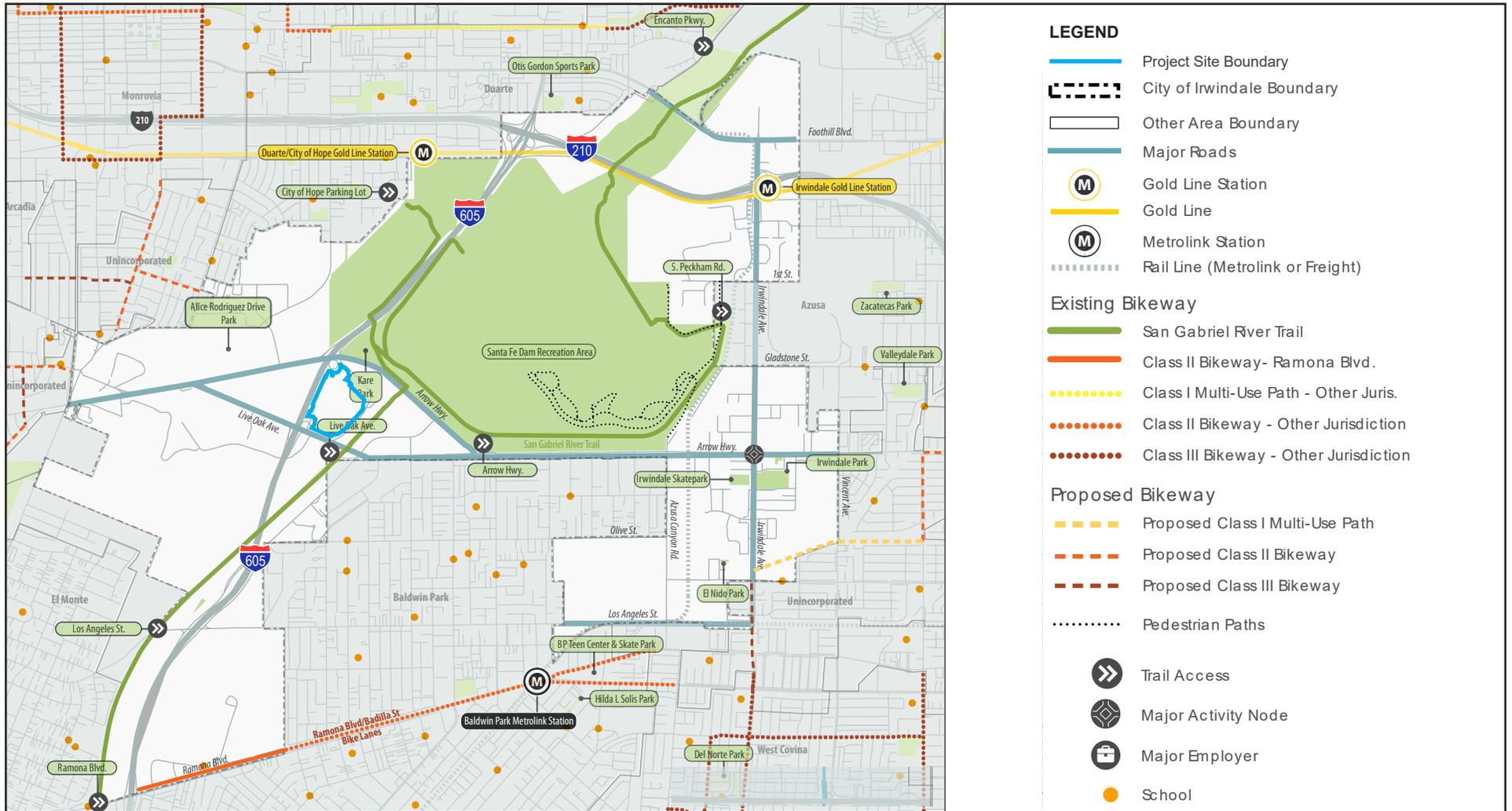
Source: Appendix L1.

The project elements alone are not sufficient to bring the proposed project's VMT impact to less than significant, and the following VMT reduction measures were assessed:

- Installation of a bus stop for Foothill Transit line 492 on Live Oak Avenue at Live Oak Lane would shorten the distance to the nearest transit stop from approximately 2,750 feet to approximately 150 feet. This measure would require coordination with Foothill Transit and the City of Irwindale. Bus pads are already present at the project driveway intersection on both sides of the roadway, and the project could support the stop with funds for signage, a shelter/seating, and required ADA upgrades to access the stops.

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Figure 5.13-5 - Existing and Proposed Bikeways



Source: PlaceWorks, 2021.

## 5. Environmental Analysis

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## 5. Environmental Analysis TRANSPORTATION

- Modification of the public sidewalk and landscaping along the northern side of the section of Live Oak Avenue that abuts the project site would include accommodation of a Class IV trail,<sup>3</sup> consistent with the City of Irwindale's ATP, to create a portion of the connection to the San Gabriel River Trail. One goal of the ATP is to improve bicycle connections citywide by increasing access to its existing Class I bicycle facility, the San Gabriel River Trail, which is a major regional bikeway and provides connections to communities south of Irwindale.

As shown in Table 5.13-1, with the implementation of these VMT reduction measures, the San Gabriel Valley Council of Governments Regional VMT Analysis Tool forecasts the project's VMT to be reduced to 18.4 daily VMT per employee using industry standards measures of effectiveness for VMT reduction measures within the geographic context of the project. The VMT per employee value is below the City's threshold. Therefore, with the implementation of Mitigation Measures T-1 and T-2, impacts would be less than significant.

***Level of Significance Before Mitigation:*** Potentially significant without mitigation.

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**Impact 5.13-3: Development accommodated by the Specific Plan would not increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). [Threshold T-3]**

---

The proposed project would introduce several new on-site vehicular access and circulation improvements. As shown on Figures 3-5 and 5.13-1, vehicular access to the proposed project would be provided via Live Oak Avenue, Arrow Highway, and Live Oak Lane. Six proposed driveways would be located along Live Oak Lane, which connects to Live Oak Avenue at an unsignalized intersection to the south of the project site. Another driveway is proposed on Live Oak Avenue.

The City and Los Angeles County Fire Department (LACFD) have adopted design standards that preclude the construction of any unsafe roadway, circulation, or access design features. Design and construction of the proposed access and circulation improvements would be required to adhere to the City's engineering standards and LACFD's design standards, which are imposed on development projects during the City's development review and building plan check process.

Consistent with the Specific Plan, prior to the issuance of building permits for development projects in the project site that involve a driveway connection point on Live Oak Avenue, the project applicant shall submit a driveway access study to the Irwindale Public Works Department for City review and approval. The study shall be prepared by a licensed traffic engineer, identify the proposed access driveway(s) connecting to a public street, and include a detailed evaluation of the proposed driveway for intersection lane geometrics, turn lane storage capacity, and sight distance. The City shall require that the driveway intersection be constructed in accordance with the City-approved access study prior to the issuance of a Certificate of Occupancy for any building that would use the driveway for ingress/egress.

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<sup>3</sup> Class IV bikeways (cycle tracks) are within or adjacent to a roadway and separated from traffic by a physical barrier such as bollards, on-street parking, or planters. This design allows an exclusive right-of-way for bicycle travel.

## 5. Environmental Analysis

### TRANSPORTATION

Compliance with the established design standards would ensure that hazards due to design features would not occur and that the placement of the vehicular access and circulation improvements would not create a conflict for motorists, pedestrians, or bicyclists traveling within or around the project site.

Furthermore, the proposed project would provide a network of low-speed internal drive aisles that would be safe and walkable for pedestrians while maintaining an efficient circulation system for trucks and vehicles. The proposed project would not include incompatible uses such as farm equipment on area roadways.

Therefore, impacts resulting from hazards due to design features or incompatible uses are less than significant.

*Level of Significance Before Mitigation:* Less than significant.

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**Impact 5.13-4: Development accommodated by the Specific Plan would not result in inadequate emergency access. [Threshold T-4]**

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Implementation of the Specific Plan would introduce new on-site vehicular access and circulation improvements, as discussed above. To address emergency and fire access needs, the improvements would be required to be designed and constructed in accordance with all applicable City and LACFD design standards for emergency access (e.g., minimum street width and turning radius). For example, the proposed fire lanes would be designed to meet the minimum width requirements of LACFD to allow for the adequate circulation of emergency vehicles. Fire lanes would be 26 feet wide for buildings up to 35 feet tall, and 28 feet wide for buildings taller than 35 feet.

Development accommodated by the Specific Plan would be required to incorporate all applicable design and safety requirements of the most current adopted fire codes, building codes, and nationally recognized fire and life safety standards of the City and LACFD. Compliance with these standards is ensured through the City's and LACFD's development review and building plan check process. During the development review and building plan check process, the City would coordinate with LACFD to ensure that the necessary fire prevention and emergency response features are incorporated into development accommodated by the Specific Plan and that adequate circulation and access (e.g., adequate turning radii for fire trucks, road surfacing requirements, minimum road widths, vertical clearance, gate access etc.) are provided in the traffic and circulation components. All site and building improvements would be subject to review and approval by the City and LACFD.

Off-site improvements would be required within the right-of-way of Live Oak Avenue and Live Oak Lane, which would require temporary closure of these streets. However, any minor road closure would be temporary and would only be necessary during the construction activities associated with these improvements. All proposed road closures would also be subject to review and approval by the City. Upon completion of the improvements, all road conditions would be restored to pre-existing physical conditions or better per the City's direction. Based on the preceding, impacts to emergency access would be less than significant.

*Level of Significance Before Mitigation:* Less than significant.

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### 5.13.5 Cumulative Impacts

As demonstrated above, implementation of the Specific Plan would be consistent with adopted policies, plans, and programs regarding circulation, including roadway and pedestrian and bicycle facilities. Construction and operation of development accommodated by the Specific Plan would comply and/or be consistent with the Irwindale General Plan, the City's Public Works Construction Standards, the City's ATP, and the Municipal Code.

All development projects in the City that require discretionary review would be subject to the transportation impact requirements and CEQA review. For example, as with the Specific Plan, other development projects would be required to analyze their potential transportation impacts and demonstrate their consistency with applicable transportation goals and policies of the City's General Plan. As with the Specific Plan, other development projects would similarly be required to comply with all applicable existing regulations, procedures, and policies that are intended to address transportation impacts.

The VMT analysis conducted for the project includes a Baseline plus Project VMT analysis, which is equivalent to Cumulative plus Project VMT because the expected origins, destinations, or trip lengths of site-related light-duty vehicles would not be expected to alter due to future area transportation system conditions. Without mitigation measures, development accommodated by the Specific Plan would result in a significant VMT impact, but mitigation measures would reduce the Baseline plus Project VMT impact (i.e. the Cumulative plus Project VMT impact) to less than significant. Additionally, access to the project site would be designed per City standards and would not combine with other area traffic impacts to result in a significant cumulative impact on circulation or create hazardous conditions.

### 5.13.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.13-1, 5.13-3, and 5.13-4.

Without mitigation, Impact 5.13-2 would be **potentially significant**:

### 5.13.7 Mitigation Measures

#### Impact 5.15-2

- T-1            The applicant shall coordinate with Foothill Transit and the City of Irwindale to install a bus stop at Live Oak Avenue and Live Oak Lane for the Foothill Transit Line 492. The design and installation of the bus stop shall be coordinated with Foothill Transit and shall be paid for by the project applicant. The bus stop shall be constructed prior to the issuance of a Certificate of Occupancy for the first development project on the project site.
- T-2            The applicant shall modify the public sidewalk and landscaping along the north side of the portion of Live Oak Avenue that abuts the project site to include accommodation of a Class IV trail consistent with the City of Irwindale Active Transportation Plan to create a

## 5. Environmental Analysis

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portion of the connection to the San Gabriel River Trail. Prior to the issuance of grading plans, the applicant shall submit the required improvement plans for the Class IV trail to the City of Irwindale's Public Works Department for review and approval.

#### **5.13.8 Level of Significance After Mitigation**

The mitigation measures identified above would reduce potential impacts associated with transportation to a level that is less than significant (see Table 5.13-1). Therefore, no significant adverse impacts relating to transportation would remain.

#### **5.13.9 References**

Irwindale, City of. 2021, January. Active Transportation Plan. <https://www.irwindaleca.gov/DocumentCenter/View/6532/IrwindaleActiveTransportationPlan-012021?bidId=>.

## 5. Environmental Analysis

### 5.14 TRIBAL CULTURAL RESOURCES

Tribal cultural resources (TCR) include landscapes, sacred places, or objects with cultural value to a California Native American tribe. This section of the draft environmental impact report (DEIR) evaluates the potential for implementation of the proposed project to impact TCRs. Other potential impacts to cultural resources (i.e., prehistoric, historic, and disturbance of human remains) are evaluated in Section 5.3, *Cultural Resources*.

The analysis in this section is based on the results of the Native American consultation conducted by the City in compliance with Assembly Bill (AB) 52, a Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search, and a California Historical Resources Information System (CHRIS) search.

One comment letter was received from the Native American Heritage Commission in response to the Notice of Preparation related to Cultural Resources and tribal consultation as required by AB 52 and Senate Bill 18. The relevant issues raised in that comment letter are addressed throughout this section and in Section 5.3, *Cultural Resources*. For a summary of the response letter, refer to Table 2-2, *Summary of NOP Response Comment Letters*, or refer to Appendix A2 for the complete comment letter.

#### 5.14.1 Environmental Setting

##### 5.14.1.1 REGULATORY AND PLANNING FRAMEWORK

###### Federal

###### *Archaeological Resources Protection Act*

The Archaeological Resources Protection Act of 1979 regulates the protection of archaeological resources and sites on federal and Indian lands.

###### *American Indian Religious Freedom Act and Native American Graves Protection 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. The Native American Graves Protection and Repatriation Act is a federal law passed in 1990 that mandates museums and federal agencies to return certain Native American cultural items—such as human remains, funerary objects, sacred objects, or objects of cultural patrimony—to lineal descendants or culturally affiliated Indian tribes.

###### State

###### *State Laws Pertaining to Human Remains*

Any human remains encountered during ground-disturbing activities are required to be treated in accordance with California Code of Regulations Section 15064.5(e) (CEQA); Public Resources Code (PRC) Section 5097.98; and the California Health and Safety Code Section 7050.5. California law protects Native American burials, skeletal remains, and associated grave goods regardless of their antiquity, and provides for the sensitive

## 5. Environmental Analysis

### TRIBAL CULTURAL RESOURCES

treatment and disposition of those remains. Specifically, 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 whether or not the remains are subject to the coroner's authority. If the human remains are determined to be of Native American origin, the county coroner must contact the California NAHC within 24 hours of this identification. An NAHC representative will then identify a Native American Most Likely Descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. In addition, CEQA Guidelines Section 15064.5 specifies the procedures to be followed in case of the discovery of human remains on nonfederal land. The disposition of Native American burials falls within the jurisdiction of the NAHC.

#### *California Senate Bill 18*

SB 18 regarding traditional tribal cultural places was signed into law in September 2004 and went into effect on March 1, 2005. It places requirements on local governments for developments within or near traditional tribal cultural places. SB 18 requires local jurisdictions to provide opportunities for involvement of California Native Americans tribes in the land planning process for the purpose of preserving traditional tribal cultural places. Per SB 18, the law requires a city or county to consult with the NAHC and any appropriate Native American tribe for the purpose of preserving relevant tribal cultural places prior to the adoption, revision, amendment, or update of a city's or county's general plan.

#### *California State Assembly Bill 52*

Assembly Bill 52 of 2014 amended PRC Section 5097.94 and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3.

#### *Consultation with Native Americans*

AB 52 formalizes the lead agency-tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project, including tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report.

#### *Tribal Cultural Resources*

Section 4 of AB 52 adds Sections 21074(a) and (b) to the PRC, which address tribal cultural resources and cultural landscapes. Section 21074(a) defines tribal cultural resources as one of the following:

- 1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following
  - A. Included or determined to be eligible for inclusion in the California Register of Historical Resources.

## 5. Environmental Analysis TRIBAL CULTURAL RESOURCES

- B. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
- 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Section 1(a)(9) of AB 52 establishes that “a substantial adverse change to a tribal cultural resource has a significant effect on the environment.” Effects on tribal cultural resources should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures “capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource.” Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to tribal cultural resources, the consultation shall include those topics (PRC Section 21080.3.2[a]). The environmental document and the mitigation monitoring and reporting program (where applicable) shall include any mitigation measures that are adopted (PRC Section 21082.3[a]).

### 5.14.1.2 EXISTING CONDITIONS

Refer to Section 5.3, *Cultural Resources*, of this Draft EIR for further discussion of the environmental setting for TCRs.

#### Native American Assembly Bill 52 Consultation

##### *Sacred Lands File Search Results*

The Los Angeles County Department of Regional Planning submitted an SLF request to the NAHC on April 11, 2023. This search was requested to determine whether there are sensitive or sacred Native American resources in the vicinity of the project site that could be affected by the proposed project. The NAHC responded on April 21, 2023, with a negative SLF search, indicating no record for the presence of Native American sacred land on the project site. NAHC provided a consultation list of tribes with traditional lands or cultural places within the boundaries of the city. The tribes include the Gabrieleno Band of Mission Indians–Kizh Nation, Gabrieleno/Tongva San Gabriel Band of Mission Indians, Gabrieleno/Tongva Nation, Gabrieleno Tongva Indians of California Tribal Council, Gabrieleno-Tongva Tribe, Santa Rosa Band of Cahuilla Indians, and Soboba Band of Luiseno Indians.

##### *Tribal Consultation*

In accordance with PRC Section 21080.3.1(d), a lead agency is required to provide formal notification of intended development projects to Native American tribes that have requested to be on the lead agency’s list for receiving such notification. The formal notification is required to include a brief description of the proposed project and its location, lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation regarding potential impacts to tribal cultural resources.

## 5. Environmental Analysis

### TRIBAL CULTURAL RESOURCES

The City of Irwindale sent letters to the seven Native American contacts on November 15, 2023, requesting any information related to cultural resources or heritage sites within or adjacent to the project site (Appendix E).

As part of the SB 18 process, the Gabrieleno Band of Mission Indians–Kizh Nation requested consultation with the City, and a consultation meeting was scheduled for May 23, 2023. The tribe was unable to attend the consultation meeting and provided their concerns and requested mitigation measures in written form on June 1, 2023. Their written correspondence included confidential archival information that identifies the high cultural sensitivity of the project location. The tribe included documents from historical books and screenshots of historical maps. The Gabrieleno Band of Mission Indians–Kizh Nation stated that since the site is of high importance to the tribe, tribal participation is recommended during all ground-disturbing activities. The City agreed to the mitigation measures provided by the tribe to avoid impacts to unknown and/or buried cultural resources that could be TCRs.

#### 5.14.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- TCR-1 Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
- i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
  - ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

#### 5.14.3 Applicable Specific Plan Development Standards and Design Guidelines

##### 5.14.3.1 DEVELOPMENT STANDARDS

There are no Specific Plan development standards pertaining to TCRs.

##### 5.14.3.2 DESIGN GUIDELINES

There are no Specific Plan design guidelines pertaining to TCRs.

## 5. Environmental Analysis TRIBAL CULTURAL RESOURCES

### 5.14.4 Environmental Impacts

#### 5.14.4.1 IMPACT ANALYSIS

The following impact analysis addresses the thresholds of significance for which the Notice of Preparation disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

---

**Impact 5.14-1: The proposed project would cause a substantial adverse change in the significance of a tribal cultural resource 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 TCR-1.i]**

---

See response to Impact 5.4-1 of Chapter 5.4, *Cultural Resources*, of this DEIR. As substantiated in this chapter, no impact to historical resources would occur as a result of implementation of the proposed project. Additionally, the results of the records search conducted for the project site determined that there are no TCRs listed or eligible for listing in the California Register of Historical Resources, as defined in Public Resources Code Section 5020.1(k), within the project site or within a 0.5-mile radius surrounding the project site. Therefore, no impact would occur.

*Level of Significance Before Mitigation:* No impact.

---

**Impact 5.14-2: The proposed project would cause a substantial adverse change in the significance of a tribal cultural resource that is determined by the lead agency to be significant pursuant to criteria in Public Resources Code section 5024.1(c). [Threshold TCR-1.ii]**

---

The SLF search conducted by the NAHC did not indicate the presence of known TCRs within or immediately adjacent to the project site. However, the Gabrieleno Band of Mission Indians–Kizh Nation indicated that the project area is of high importance to the tribe and that there is the potential for unknown and/or buried TCRs to be encountered during construction activities. Should such resources be determined by the lead agency to be significant, the proposed project could result in potentially significant impacts related to the substantial adverse change in the significance of TCRs. Mitigation Measures CUL-1, CUL-2, and TCR-1 through TCR-3 would be implemented as part of the proposed project to mitigate this impact to less than significant.

*Level of Significance Before Mitigation:* Potentially significant.

### 5.14.5 Cumulative Impacts

Cumulative impacts to TCRs would occur when the impacts of a proposed project, in conjunction with other cumulative projects in the city, result in multiple and/or cumulative impacts to TCRs in the area. The presence of TCRs is site specific. However, implementation of the proposed project in conjunction with other planned projects in other areas of the city could unearth unknown significant cultural resources, including TCRs. As with the proposed project, other planned development projects in the city would involve ground disturbance and could impact TCRs that could be buried in those project sites.

## 5. Environmental Analysis

### TRIBAL CULTURAL RESOURCES

However, other development projects in the city would be required to undergo discretionary review and would be subject to the same resource protection requirements and CEQA review as the proposed project. For example, other development projects could require the preparation of site-specific cultural resource assessments, which would include some degree of surface-level surveying. As a part of the assessments, a CHRIS and a Sacred Land Files search would also be required. Additionally, as with the proposed project, other development projects would similarly be required to comply with all applicable existing regulations, procedures, and policies, including consultation under AB 52, that address accidental discoveries of archaeological sites and resources, including TCRs.

Furthermore, as demonstrated below, impacts on TCRs as a result of implementation of the proposed project would be less than significant with mitigation measures.

In consideration of the preceding, the proposed project's contribution to cumulative TCR impacts would be rendered less than significant, and therefore, the proposed project's impacts would not be cumulatively considerable.

#### 5.14.6 Level of Significance Before Mitigation

Impact 5.14-1 has no impact.

Without mitigation, the following impacts would be **potentially significant**:

- **Impact 5.14-2** Ground disturbing activities could encounter unknown and/or buried tribal cultural resources associated with the Gabrieleno Band of Mission Indians–Kizh Nation.

#### 5.14.7 Mitigation Measures

##### Impact 5.14-2

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

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

The monitor shall complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities; the type of construction activities performed; locations of ground-disturbing activities; soil types; cultural-related materials; and any other facts,

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conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered tribal cultural resources, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc. (collectively, tribal cultural resources, or TCRs) as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs shall be provided to the project applicant/lead agency upon written request to the Tribe.

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

TCR-2 Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh monitor and/or Kizh archaeologist. The Kizh shall recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural, and/or historic purposes.

TCR-3 Native American human remains are defined in Public Resources Code 5097.98(d)(1) as an inhumation or cremation and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.

If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resources Code 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed. Human remains and grave/burial goods shall be treated alike per California Public Resources Code Sections 5097.98(d)(1) and (2). Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

### 5.14.8 Level of Significance After Mitigation

The mitigation measures identified above would reduce Impact 5.14-2 to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to recreation remain.

### 5.14.9 References

Irwindale, City of. 2023. AB 52 Correspondences with Tribes. (Appendix E).

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### TRIBAL CULTURAL RESOURCES

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## 5. Environmental Analysis

### 5.15 UTILITIES AND SERVICE SYSTEMS

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the proposed Irwindale Gateway Specific Plan (Specific Plan) to impact utilities and services systems. Utilities and services systems include wastewater (sewage) treatment and collection systems, water supply and distribution systems, storm drainage, solid waste collection and disposal, and other public utilities. Potential impacts to hydrology (e.g., flooding) and water quality are provided in Section 5.8, *Hydrology and Water Quality*. Storm drainage, though discussed below, is also addressed in Section 5.8, *Hydrology and Water Quality*.

The analysis in this section is based in part on the following technical reports:

- *Utilities Study*, David Evans and Associates, March 2023.
- *Sewer Area Study*, David Evans and Associates, March 20, 2023.
- *Water Supply Assessment*, Stetson Engineers, March 2023.

Complete copies of these reports are included in Appendices M1, M2, and M3, respectively, of this DEIR.

#### 5.15.1 Wastewater Treatment and Collection

##### 5.15.1.1 ENVIRONMENTAL SETTING

###### Regulatory Background

Federal, state, and local laws, regulations, plans, or guidelines related to wastewater treatment and collection that are applicable to the Specific Plan are summarized below.

###### *Federal*

###### *Clean Water Act and National Pollution Elimination Discharge System*

The Clean Water Act establishes regulations to control the discharge of pollutants into the waters of the United States and regulates water quality standards for surface waters (US Code, Title 33, Sections 1251 et seq.). Under the act, the US Environmental Protection Agency (EPA) is authorized to set wastewater standards and runs the National Pollutant Discharge Elimination System (NPDES) permit program. Under the NPDES program, permits are required for all new developments that discharge directly into Waters of the United States. The federal Clean Water Act requires wastewater treatment of all effluent before it is discharged into surface waters. NPDES permits for such discharges in the project region are issued by the Los Angeles Regional Water Quality Control Board (RWQCB) (Region 4).

###### *State*

###### *State Water Resources Control Board: Statewide General Waste Discharge Requirements*

The General Waste Discharge Requirements specify that all federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length which collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in

## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEMS

the State of California need to develop a sewer master plan. The master plan evaluates existing sewer collection systems and provides a framework for undertaking the construction of new and replacement facilities to maintain proper levels of service. It includes inflow and infiltration studies to analyze flow monitoring and water use data, a capacity assurance plan to analyze the existing system with existing land use and unit flow factors, a condition assessment and sewer system rehabilitation plan, and a financial plan with recommended capital improvements and financial models.

#### *General Pretreatment Regulations for Existing and New Sources of Pollution*

The General Pretreatment Regulations establish the responsibilities of federal, state, and local governments; industry; and the public to implement National Pretreatment Standards to control pollutants that pass through or interfere with treatment processes in publicly owned treatment works or that may contaminate sewage sludge. Pretreatment standards are pollutant discharge limits that apply to industrial users.

#### *Regional*

#### *San Jose Creek Water Reclamation Plant NPDES Permit*

Wastewater generated by development in the city is conveyed to the San Jose Creek Water Reclamation Plant (WRP) for treatment. The San Jose Creek WRP is owned and operated by Los Angeles County Sanitary District (LACSD) and provides primary, secondary, and tertiary wastewater treatment. Wastewater discharge requirements for the San Jose Creek WRP are detailed in NPDES No. CA0053911. The permit includes the conditions needed to meet minimum applicable technology-based requirements. The permit includes limitations more stringent than applicable federal technology-based requirements where necessary to achieve the required water quality standards.

#### *Los Angeles County Sanitation District's Connection Fees*

Capital improvements to the San Jose Creek WRP are funded from connection fees charged to new developments, redevelopments, and expansions of existing land uses. The connection fee is a capital facilities fee used to provide additional conveyance, treatment, and disposal facilities (capital facilities) required by new users connecting to the LACSD's sewerage system or by existing users who significantly increase the quantity or strength of their wastewater discharge. The Connection Fee Program ensures that all users pay their fair share for any necessary expansion of the system. Estimated wastewater generation factors used in determining connection fees in LACSD's 22 member districts are in the Connection Fee Ordinance for each respective district, available on LACSD's website. The Specific Plan area is in the LACSD's District 22 service area, and development accommodated by the Specific Plan would be subject to the Connection Fee Ordinance.

#### *Los Angeles County Sanitation District's Wastewater Ordinance*

The purpose of LACSD's wastewater ordinance is to establish controls on users of LACSD's sewer system to protect the environment and public health, and to provide for the maximum beneficial use of LACSD's facilities. The provision of this ordinance applies to all direct or indirect discharges to any part of LACSD's sewer system. The ordinance regulates sewer construction and provides for the approval of plans for sewer construction and implements federal and state pollution control regulations.

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### *Local*

#### *City of Irwindale Municipal Code*

**Chapter 3.50, Development Impact Fees.** This chapter requires anyone who develops or redevelops land in the City to pay development impact fees. The development impact fee program funds the acquisition, design, and construction of certain public facilities necessary to serve new development in the City.

**Chapter 13.04, Sanitary Sewer and Industrial Waste Ordinance.** This chapter regulates the discharge, deposit, and disposal of all waste, including any material that may cause pollution of underground or surface waters.

### **Existing Conditions**

#### *Wastewater Conveyance*

An existing 10-inch sewer line and 15-inch sewer line run along Live Oak Avenue and Commerce Drive/Center Street, respectively, both to the east side of the project. These sewer lines are designed to drain south to the main 18-inch trunk line on Ramona Parkway, conveying the sewer load from the existing commercial/industrial developments on the northeast corner of Live Oak Avenue and Rivergrade Road and from the commercial/industrial development on the north side of Rivergrade Road.

The 10-inch sewer line on Live Oak Avenue is under the jurisdiction of the City of Irwindale, and the 15-inch sewer line on Commerce Drive and Center Street is under the jurisdiction of the City of Baldwin Park. The 18-inch trunk line in Romana Parkway is under the jurisdiction of LACSD. The LACSD trunk sewer has a capacity of 4.8 million gallons per day (mgd) and conveyed a peak flow of 2.1 mgd when last measured in 2013.

#### *Wastewater Treatment*

The LACSD's 18-inch trunk main in Romana Parkway conveys wastewater to be treated at the San Jose Creek WRP, adjacent to the City of Industry. The San Jose Creek WRP has a capacity of 100 mgd and currently processes an average flow of 61.2 mgd (see Appendix M2).

### **5.15.1.2 THRESHOLDS OF SIGNIFICANCE**

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

- U-1 Requires or results 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.
- U-3 Results in a determination by the waste water 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.

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### UTILITIES AND SERVICE SYSTEMS

#### 5.15.1.3 APPLICABLE SPECIFIC PLAN DEVELOPMENT STANDARDS AND DESIGN GUIDELINES

##### Development Standards

The Specific Plan does not include specific development standards for wastewater treatment and collection in Chapter 6, Development Standards; however, Chapter 8, Utility Infrastructure, describes the sewer system requirements. Section 8.2, Sanitary Sewer, provides a conceptual sewer plan and required project design features.

The Specific Plan requires that all private sewer infrastructure be installed on-site beneath private driveways and drive aisles, and/or parking lots/truck courts to facilitate access for routine maintenance and/or repair. Locations and alignments of all sewer mains, laterals, and connection points shall be subject to the approval of the City Engineer from the City of Irwindale Public Works Department.

##### Design Guidelines

There are no Specific Plan design guidelines pertaining to wastewater systems.

#### 5.15.1.4 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance for which the Notice of Preparation disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.15-1: Implementation of the Specific Plan would not require or result in the relocation or construction of new or expanded wastewater facilities the construction or relocation of which could cause significant environmental effects. [Threshold U-1 (part)]**

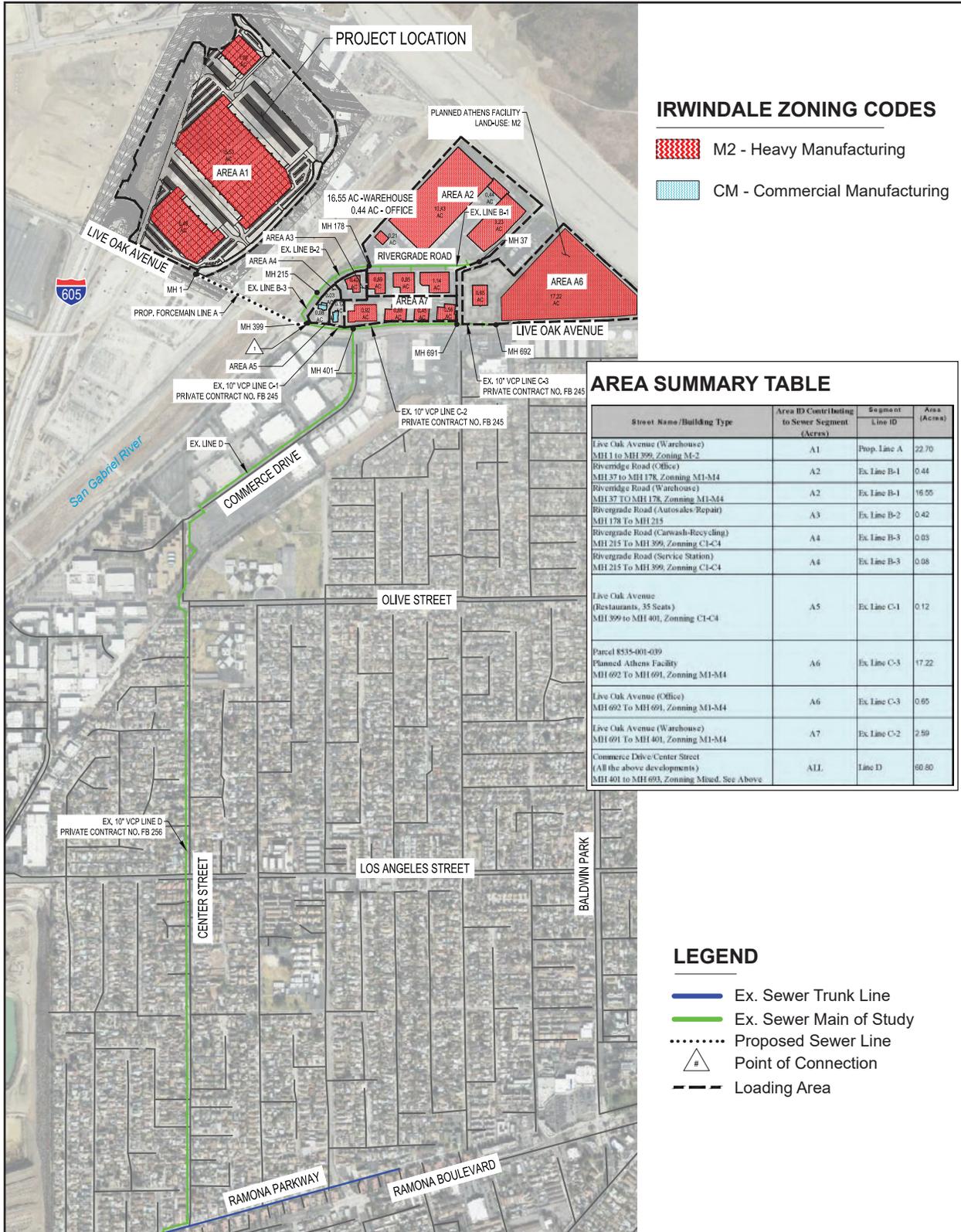
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##### Construction Phase

The City would provide wastewater collection and conveyance service to the project area. As shown on Figure 5.15-1, *Proposed Off-Site Sewer System*, wastewater from the project site would be conveyed to a proposed 6-inch force main sewer line (Line A) that drains east on Live Oak Avenue to the existing 10-inch sewer line (Line C-1) on Live Oak Avenue. Existing Lines B-1, B-2, B-3, C-2, and C-3 also drain into Line C-1.

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Figure 5.15-1 - Proposed Offsite Sewer System



Source: David Evans & Associates, Inc., 2023.

0 1,500  
Scale (Feet)



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## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEM

As shown on Figure 5.15-2a, *Conceptual Sewer Plan Option 1*, and 5.15-2b, *Conceptual Sewer Plan Option 2*, the proposed private sewer system consists of a gravity network installed on-site beneath private driveways and drive aisles, and/or parking lots/truck courts to facilitate access for routine maintenance and/or repair. Locations and alignments of all sewer mains, laterals, and connection points would be subject to the approval of the City of Irwindale Public Works Department.

Construction impacts associated with the installation of sewer lines on-site would primarily involve trenching to place the lines. The construction-related environmental impacts associated with these improvements are analyzed throughout this DEIR since it is a component of the Specific Plan. The analysis herein focuses on off-site construction and whether the City and LACSD would need to expand their sewer systems to handle the demand generated by development accommodated by the Specific Plan.

Apart from the proposed off-site connection to Line C-1, no other off-site sewer line construction or upsizing would be required to accommodate the Specific Plan. However, some construction would occur within the public right-of-way on Live Oak Avenue to make the necessary infrastructure connections to the existing sewer mains. Prior to ground disturbance, project contractors would coordinate with the City to identify the locations and depth of all sewer lines, and the proposed sewer system improvements would be designed and constructed in accordance with City requirements and would require City approval.

Additionally, wastewater generation would not occur during the construction phase of the Specific Plan. Construction workers would utilize portable restrooms, which would dispose of wastewater off-site and would not contribute to wastewater flows to the City's wastewater system. Thus, construction of the development accommodated by the Specific Plan would not require new or expanded wastewater infrastructure, the construction or relocation of which could cause significant environmental effects. Therefore, impacts would be less than significant.

### Operation Phase

The Specific Plan proposes two options: Option 1 includes 982,796 square feet of warehousing and office space; Option 2 includes 725,000 square feet of warehousing and office use and the proposed Battery Energy Storage System (BESS) facility. Since the BESS would not generate wastewater, Option 1 is analyzed here since it is more conservative with respect to wastewater generation.

Los Angeles County Public Works uses a sewer generation rate of 0.021 cubic feet per second per acre (cfs/acre) for sites that are zoned Heavy Industrial (M-1 through M-4), and 0.015 cfs/acre for sites zoned Commercial (C1 through C-4) (LACPW 2023). As shown on Figure 5.15-1, all uses that drain into Line C-1 have been identified and subdivided into seven areas. The Specific Plan area is area A1. The planned Athens Facility (area A2) is also included in the analysis. The Athens Facility would be located to the east of the project site and would consist of heavy industrial uses. Based on the type of proposed uses and the County's generation factor, the Specific Plan would generate approximately 0.48 cfs or 310,232 gallons per day (gpd) of wastewater (see Table 5.15-1).

## 5. Environmental Analysis UTILITIES AND SERVICE SYSTEMS

**Table 5.15-1 Projected Wastewater Generation**

Area	Zoning	Acreage	Sewer Segment Line ID	Wastewater Generation Rates (cfs/acre)	Cumulative Calculated Flow (cfs)
A1 – Specific Plan Area	Heavy Industrial	22.70	Proposed Line A	0.021	0.477
A2 - Riveridge Road (Office)	Heavy Industrial	0.44	Existing Line B-1	0.021	0.009
A2- Riveridge Road (Warehouse)	Heavy Industrial	16.55	Existing Line B-1	0.021	0.357
A3- Rivergrade Road (Autosales/Repair)	Heavy Industrial	0.42	Existing Line B-2	0.021	0.366
A4 - Rivergrade Road (Carwash-Recycling)	Commercial	0.03	Existing Line B-3	0.015	0.366
A4 - Rivergrade Road (Service Station)	Commercial	0.08	Existing Line B-3	0.015	0.367
A5 - Live Oak Avenue (Restaurants)	Commercial	0.12	Existing Line C-1	0.015	0.846
A6 - Parcel 8535-001-039 Planned Athens Facility	Heavy Industrial	17.22	Existing Line C-3	0.021	0.362
A6 - Live Oak Avenue (Office)	Heavy Industrial	0.65	Existing Line C-3	0.021	0.375
A7- Live Oak Avenue (Warehouse)	Heavy Industrial	2.59	Existing Line C-2	0.021	0.430
Commerce Drive/Center Street (All the above developments)	-	60.80	Line D	-	1.275

Source: Appendix M2.  
Notes: cfs=cubic feet per second.

Based on the Los Angeles County “Policy for Managing Available Sewer Capacity and Sewage Discharging Excess of Design Capacity,” sewer line capacities are defined as follows (Los Angeles 2005):

- < 15-inch diameter ½ full = 100 percent capacity
- ≥ 15-inch diameter ¾ full = 100 percent capacity

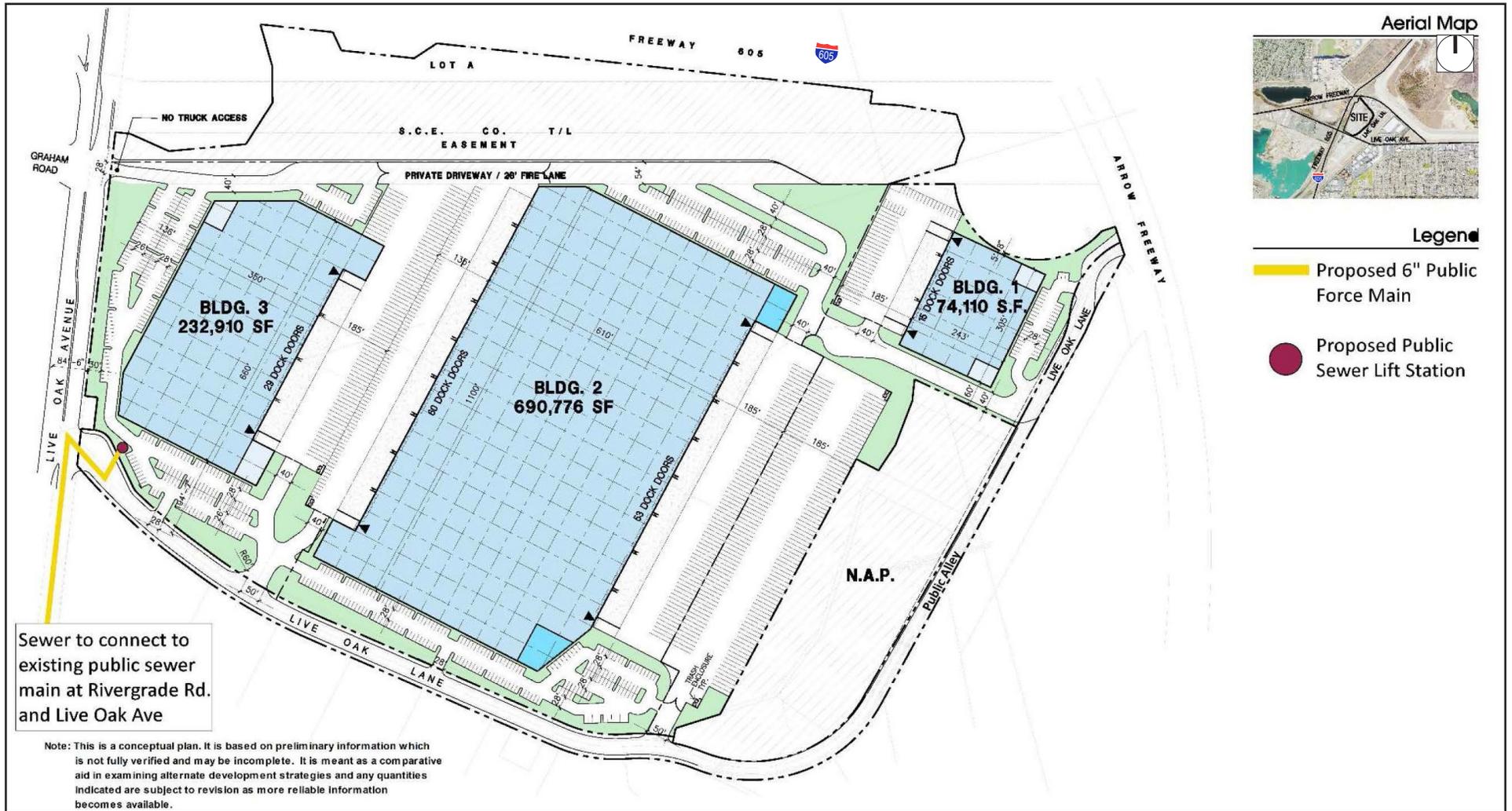
Based on the Los Angeles County policy, when an area study indicates that flow conditions based on calculated discharges are between 101 percent to 150 percent of capacity, no flow measurements and no mitigation is required. As shown in Table 5.15-2, the existing lines can handle the additional flows from development pursuant to the Specific Plan. Line C-1 would convey flows that do not exceed 150 percent.

**Table 5.15-2 Off-Site Sewer Line Capacity**

Sewer Segment Line ID	Pipe Size (inches)	Design Capacity (cfs)	Projected Flow (cfs)	Percent Full
Line B-1	10	0.711	0.009	1.30
Line B-1	10	0.711	0.357	50.20
Line B-2	10	0.822	0.366	44.50
Line B-3	10	0.822	0.366	44.56
Line B-3	10	0.822	0.367	44.70
Line C-1	10	0.822	0.846	102.94
Line C-3	10	0.747	0.362	48.40
Line C-3	10	0.747	0.375	50.23
Line C-2	10	0.696	0.430	61.77
Line D	15	3.068	1.275	41.58

Source: Appendix M2.  
Notes: cfs=cubic feet per second.

5. Environmental Analysis  
Figure 5.15-2a - Conceptual Sewer Plan Option 1



0 450  
Scale (Feet)

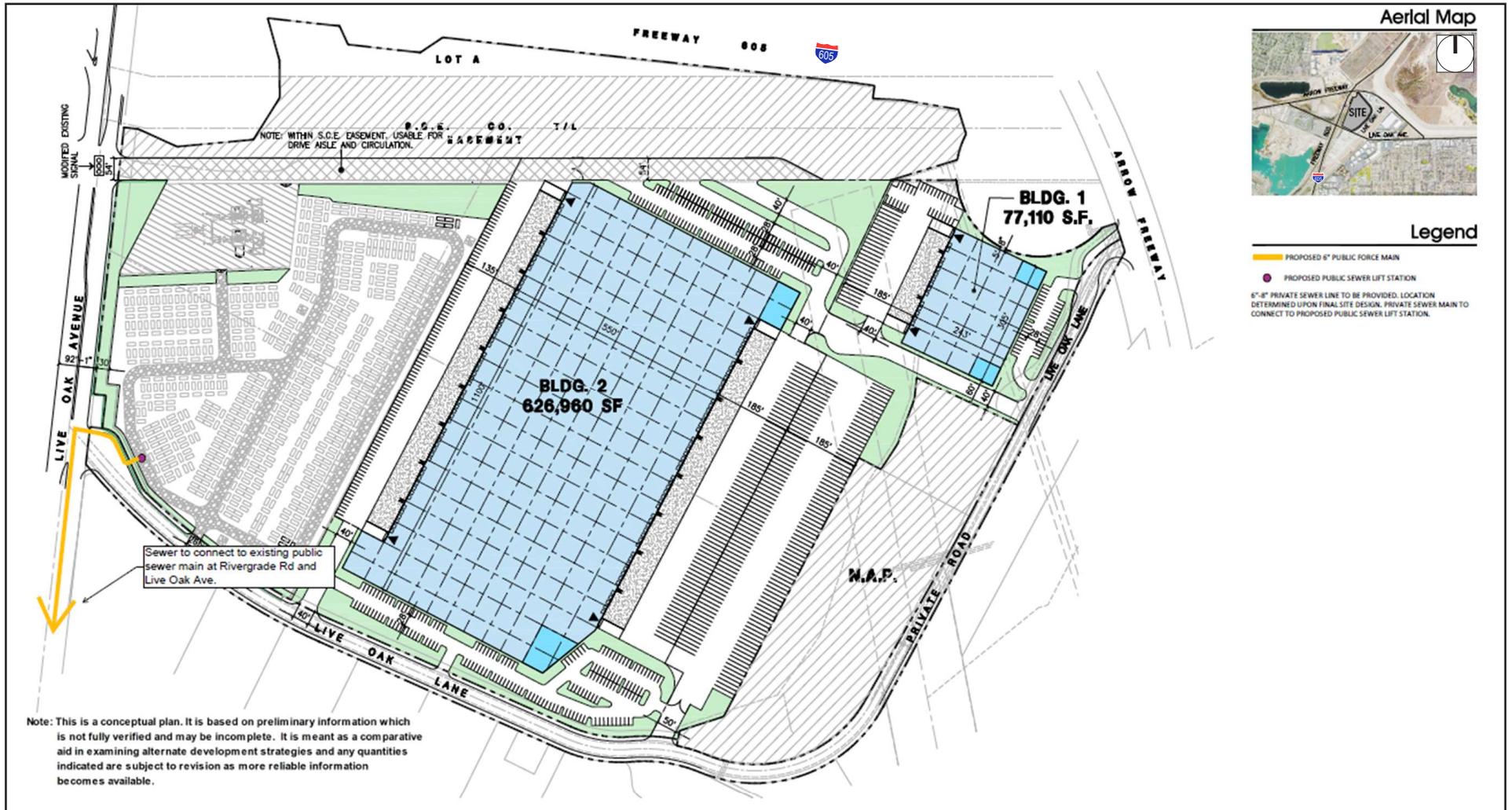


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5. Environmental Analysis  
Figure 5.15-2b - Conceptual Sewer Plan Option 2



0 450  
Scale (Feet)



## 5. Environmental Analysis UTILITIES AND SERVICE SYSTEMS

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## 5. Environmental Analysis UTILITIES AND SERVICE SYSTEM

Furthermore, any development accommodated by the Specific Plan would comply with Chapter 3.50, Development Impact Fees, of the municipal code and LACSD's connection fee requirements to provide financing for the ongoing maintenance and operation of the sanitary sewer systems, including capital replacement costs.

Based on the preceding, implementation of the Specific Plan would not require the relocation or construction of new or expanded wastewater conveyance infrastructure. Therefore, impacts would be less than significant.

### *Wastewater Treatment*

Buildout of the Specific Plan would generate 310,232 gpd (or 0.031 mgd) of wastewater that would need to be treated at the San Jose Creek WRP, which has a residual capacity of 38.8 mgd. Therefore, implementation of the Specific Plan would contribute to an increased sewage flow equivalent to less than 1 percent of the WRP's residual capacity, and thus no new or expanded water reclamation plant facilities would be needed.

Additionally, the San Jose Creek WRP is required by federal and state law to meet applicable standards of treatment plant discharge requirements subject to NPDES No. CA0053911. The permit includes the conditions needed to meet minimum applicable technology-based requirements. The NPDES permit regulates the amount and type of pollutants that the system can discharge into receiving waters. The San Jose Creek WRP is operating in compliance with and would continue to operate subject to state waste discharge requirements and federal NPDES permit requirements, as set forth in the NPDES permit and order.

Furthermore, development accommodated by the Specific Plan would be required to comply with the LACSD's Wastewater Ordinance and Connection Fee Ordinance, which includes the payment of a connection fee, the approval of plans for sewer construction by LACSD, and the prohibition of certain discharges to sewer lines. Future development would also need to abide by the requirements of Chapter 3.50 and Chapter 13.04, Sanitary Sewer and Industrial Waste Ordinance, of the City's municipal code. This chapter regulates the discharge, deposit, and disposal of all waste, including any material that may cause pollution of underground or surface waters.

As described above, the additional wastewater (quantity and type) that would be generated by the Specific Plan and treated by the San Jose Creek WRP would not impede the treatment plant's ability to continue to meet its wastewater treatment requirements, and no new or expanded treatment facilities would be required.

Therefore, impacts on wastewater treatment would be less than significant.

*Level of Significance Before Mitigation:* Less than significant.

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**Impact 5.15-2: Project-generated wastewater could be adequately treated by the wastewater service provider for the project. [Threshold U-3]**

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Wastewater from the proposed uses that would be accommodated by the Specific Plan do not contain substances of types and amounts prohibited by LACSD discharge limits. Thus, project-generated wastewater would not adversely affect LACSD's compliance with NPDES No. CA0053911. Development accommodated by the Specific Plan would also be designed, constructed, and operated in accordance with LACSD's Wastewater

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Ordinance, and the discharge of oil or petroleum products to the sewer system is prohibited. As noted above, the San Jose Creek WRP has a residual capacity of 38.8 mgd and the plant can accommodate the additional 310,232 gpd of wastewater that would be generated by development accommodated by the Specific Plan. Therefore, LACSD has adequate capacity to serve the Specific Plan's projected demand in addition to the provider's existing commitments. Impacts would be less than significant.

*Level of Significance Before Mitigation:* Less than significant.

#### 5.15.1.5 CUMULATIVE IMPACTS

The area considered for cumulative impacts to wastewater treatment is WRP's service area. The area considered for cumulative impacts to wastewater conveyance systems is LACSD's service area and the City's sewer system service area.

Future growth in the city would result in increases in wastewater generation and flow. These include increases in residential, commercial, and industrial effluent. All future development in the City would pay development impact fees, per Chapter 3.50 of the municipal code, to fund future sewer infrastructure expansions needed to accommodate the growth. Additionally, projects within LACSD's larger service area would be reviewed on a project-by-project basis to verify that existing capacity exists to convey the wastewater generated by the new development and whether construction of new sewer lines would cause significant environmental effects. Through the use of connection fees and agreements, LACSD is able to maintain and expand its wastewater collection system as necessary and is able to ensure that new developments pay their fair-share costs associated with increased demand. Therefore, there would be no significant cumulative impacts on wastewater collection.

The City's wastewater effluent is directed to the San Jose Creek WRP operated by LACSD. Future development in the City would comply with Chapter 13.04 of the Irwindale Municipal Code and LACSD's Wastewater Ordinance to ensure that the San Jose Creek WRP continues to operate in compliance with its NPDES permit. Furthermore, future development would also comply with the LACSD's connection fee requirements to fund future capital improvement programs. Accordingly, cumulative impacts on wastewater infrastructure and treatment would be less than significant.

### 5.15.2 Water Supply and Distribution Systems

#### 5.15.2.1 ENVIRONMENTAL SETTING

##### Regulatory Background

###### *Federal*

###### *Safe Drinking Water Act*

The federal Safe Drinking Water Act is enforced by the EPA, which sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. The act requires actions to protect drinking water and its sources, which include rivers, lakes, and groundwater.

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#### State

##### *California Urban Water Management Planning Act*

The Urban Water Management Planning Act requires urban water suppliers to prepare an urban water management plan (UWMP) if they provide water for municipal purposes to more than 3,000 customers or provide more than 3,000 acre-feet per year (AFY) of water. The intent of the UWMP is to assist water supply agencies in water resource planning given their existing and anticipated future demands. The UWMP must include a water supply and demand assessment that compares total water supply available to the water supplier with the total projected water use over a 20-year period. It is also mandatory that UWMPs be updated every five years.

##### *Senate Bills 610*

Senate Bill (SB) 610 amended State law to ensure better coordination between local water supply and land use decisions and confirm that there is an adequate water supply for new development. Specific projects are required to prepare a water supply assessment (WSA). The WSA is composed of information regarding existing and forecasted water demands, as well as information pertaining to available water supplies for the new development. The following projects that are subject to the California Environmental Quality Act (CEQA) are required to prepare a WSA:

- Residential developments consisting of more than 500 dwelling units.
- Shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- Commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- Hotel or motel, or both, having more than 500 rooms.
- Industrial, manufacturing, or processing plant or industrial park planned to employ more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- Mixed-use project that includes one or more of the projects specified above.
- Projects that would demand an amount of water equivalent to, or greater than, the amount of water required for 500 dwelling units.

##### *California Plumbing Code*

The California Plumbing Code was adopted as part of the California Building Code and specifies technical standards of design, materials, workmanship, and maintenance for plumbing systems. The code is updated on a three-year cycle; the latest edition is dated 2022 and effective as of January 1, 2023. One of the purposes of the plumbing code is to prevent conflicting plumbing codes within local jurisdictions. Among many topics covered in the code are water fixtures, potable and nonpotable water systems, and recycled water systems.

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#### *The Water Conservation Act of 2009 (Senate Bill X7-7)*

The Water Conservation Act of 2009, SB X7-7, requires all water suppliers to increase water use efficiency. The legislation sets an overall goal of reducing per capita water use by 20 percent by 2020, with an interim goal of a 10 percent reduction in per capita water use by 2015. Effective in 2016, urban retail water suppliers who do not meet the water conservation requirements established by this bill are not eligible for state water grants or loans. SB X7-7 requires that urban water retail suppliers determine baseline water use and set reduction targets according to specified standards; it also requires that agricultural water suppliers prepare plans and implement efficient water management practices.

#### *20x2020 Water Conservation Plan*

The 20x2020 Water Conservation Plan of 2010 was a byproduct of the Water Conservation Act of 2009. The plan had a threefold effect, establishing: 1) a benchmark of current usage per capita of 2005 baseline data; 2) an intermediate goal for all water providers to meet by 2015; and 3) a 20 percent reduction by 2020 of water usage.

#### *Assembly Bill 1668 and Senate Bill 606*

In 2018, the California Legislature enacted two policy bills to establish long-term improvements in water conservation and drought planning to adapt to climate change and longer and more intense droughts in California. The Department of Water Resources (DWR) and the State Water Resources Control Board (SWRCB) will develop new standards for:

- Indoor residential water use
- Outdoor residential water use
- Commercial, industrial, and institutional (CII) water use for landscape irrigation with dedicated meters
- Water loss

Urban water suppliers will be required to stay within annual water budgets, based on their standards for their service areas, and to calculate and report their urban water use objectives in an annual water use report. For example, the bills define a daily standard for indoor residential use of 55 gallons per person until 2025, when it decreases to 52.5 gallons and further decreases to 50 gallons by 2030. The legislation also includes changes to UWMP preparation requirements.

#### *Mandatory Water Conservation*

Following the declaration on July 15, 2014, of a state of emergency due to drought conditions, the SWRCB adopted Resolution No. 2014-0038 for emergency regulation of statewide water conservation efforts. These regulations, which went into effect on August 1, 2014, were intended to reduce outdoor urban water use and persuade all California households to voluntarily reduce their water consumption by 20 percent. Water companies with 3,000 or more service connections were required to report monthly water consumption to the SWRCB. The SWRCB readopted the regulations several times until Governor Brown issued Executive Order B-40-17 in April 2017, ending the drought emergency and directing the SWRCB to rescind portions of its existing drought emergency water conservation regulations but maintain the portions that prohibit wasteful water use practices until permanent requirements are in place. The prohibitions that are still in effect address:

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1) the application of potable water to outdoor landscapes in a manner that causes excess runoff; 2) the use of a hose to wash a motor vehicle except where the hose is equipped with a shut-off nozzle; 3) the application of potable water to driveways and sidewalks; 4) the use of potable water in nonrecirculating ornamental fountains; and 5) the application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall. Also, urban water suppliers are still required to submit monthly water monitoring reports to the SWRCB.

### *Governor's 2021 Drought Declaration*

Governor Gavin Newsom declared a drought state of emergency on April 21, 2021, and asked state agencies to partner with local water districts and utilities to make Californians aware of drought and encourage actions to reduce water usage by promoting DWR's Save Our Water Campaign and other water conservation programs. The proclamation also included measures to be implemented by the DWR, SWRCB, the Department of Fish and Wildlife, and the Department of Food and Agriculture that included coordinated state and local actions to address issues stemming from continued dry conditions.

The governor issued subsequent drought emergency proclamations on May 10, June 8, and October 19 of 2021, and March 28 of 2022. The May 10 proclamation included further measures to be implemented by DWR, SWRCB, the Department of Fish and Wildlife, and the Department of Food and Agriculture. The July 8 proclamation called on Californians to voluntarily reduce water use by 15 percent from their 2020 levels. The October 19 proclamation required local water suppliers to implement water shortage contingency plans that are responsive to local conditions and prepare for the possibility of a third dry year. The March 28 proclamation required that by May 25, 2022, the SWRCB must consider adopting emergency regulations defining nonfunctional turf<sup>1</sup> and banning irrigation of nonfunctional turf in the commercial, industrial, and institutional sectors. The proclamation also required that by May 25, 2022, SWRCB must consider adopting emergency regulations to implement the shortage response actions specified in UWMPs for a water shortage level of up to 20 percent.

The SWRCB tracks and reports monthly on the state's progress toward achieving a 15 percent reduction in statewide urban water use compared to 2020 use.

### *State Water Resources Control Board Resolution No. 2022-002*

On January 4, 2022, the SWRCB adopted an emergency regulation by resolution. On January 18, 2022, the emergency regulation became effective and would remain in effect for one year from the effective date unless the SWRCB acted to end, modify, or readopt it. The emergency regulation requirements include:

- Turning off decorative water fountains.
- Turning off/pausing irrigation systems when it rains and for two days after rain.
- Using an automatic shut-off nozzle on water hoses.
- Using a broom, not water, to clean sidewalks and driveways.

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<sup>1</sup> Nonfunctional turf is turf that is ornamental and not otherwise used for human recreation purposes such as school fields, sports fields, and parks.

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### UTILITIES AND SERVICE SYSTEMS

- Giving trees just what they need and avoid overwatering.

#### *Water Conservation in Landscaping Act of 2006 (AB 1881)*

The Water Conservation in Landscaping Act of 2006 (AB 1881) required the DWR to update the State Model Water Efficient Landscape Ordinance by 2009. The State's model ordinance was issued on October 8, 2009. Under AB 1881, cities and counties were required to adopt a State updated model landscape water conservation ordinance by January 31, 2010, or to adopt a different ordinance that is at least as effective in conserving water as the updated model ordinance. It also required reporting on the implementation and enforcement of local ordinances, with required reports due by December 31, 2015.

#### *2015 Update of the State Model Water Efficient Landscape Ordinance (Executive Order B-29-15)*

To improve water savings in the landscaping sector, the DWR updated the State Model Water Efficient Landscape Ordinance in accordance with Executive Order B-29-15. The Model Ordinance promotes efficient landscapes in new developments and retrofitted landscapes. The Executive Order called for revising the Model Ordinance to increase water efficiency standards for new and retrofitted landscapes through more efficient irrigation systems, greywater usage, and on-site stormwater capture, and by limiting the portion of landscapes that can be covered in turf.

New development projects that include landscaped areas of 500 square feet or more—including residential, commercial, industrial, and institutional projects that require a permit, plan check, or design review—are subject to the Model Ordinance. The previous landscape-size threshold for new development projects ranged from 2,500 square feet to 5,000 square feet.

#### *California Green Building Standards Code*

The nonresidential provisions of the 2022 California Green Building Standards (CALGreen) Code outline planning, design, and development methods that include environmentally responsible site selection, building design, building siting, and development to protect, restore, and enhance the environmental quality of the site and respect the integrity of adjacent properties. The code also establishes the means of conserving water used indoors, outdoors, and in wastewater conveyance, outlines means of achieving material conservation and resource efficiency; and outlines means of reducing the quantity of air contaminants.

### *Regional*

#### *Valley County Water District Urban Water Management Plan*

The planning area is in the existing service area of the Valley County Water District (VCWD). The VCWD is required to prepare a UWMP for its service areas pursuant to Water Code Sections 10610 through 10656, the Urban Water Management Planning Act, effective January 1, 1984. The Urban Water Management Planning Act requires all urban water suppliers to prepare, adopt, and file a UWMP with the DWR every five years. The VCWD's 2020 UWMP outlines current water demands, sources, and supply reliability to the VCWD's service area by forecasting water use based on climate, demographics, and land use changes. The plan also details the Water Shortage Contingency Plan used in case of shortage emergencies.

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### Local

#### *City of Irwindale Municipal Code*

**Chapter 3.16, Utilities Tax.** This chapter describes mandated taxes for electricity, gas, and water utility services.

**Chapter 15.10, Green Building Standards Code.** This chapter adopts by reference the CALGreen Building Code. CALGreen applies to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure in California, unless otherwise indicated in the code.

**Chapter 15.16, Plumbing Code.** This chapter adopts by reference the Los Angeles County Plumbing Code, which incorporates and amends the California Plumbing Code.

**Chapter 15.30, Water Efficient Landscape Requirements and Guidelines.** The purpose of this chapter is to establish a local ordinance that is acceptable under AB 1881 as being at least as effective as the State Model Water Efficient Landscape Ordinance in the context of conditions in the city.

### Existing Conditions

#### *Water Supply*

VCWD was formed in 1925 and incorporated in January 1926 under the name of Baldwin Park County Water District. On January 1, 1978, Baldwin Park County Water District's name was officially changed to Valley County Water District. VCWD's service area encompasses approximately 9.4 square miles and incorporates portions of Baldwin Park, Irwindale, West Covina, and Azusa.

VCWD's water supply sources include groundwater pumped from seven active wells in the Main San Gabriel Basin (Main Basin). VCWD can purchase treated imported water from the Covina Irrigating Company (CIC). VCWD can also purchase treated imported water from the Metropolitan Water District through the Upper San Gabriel Valley Municipal Water District. Table 5.15-3 provides VCWD's historical water supply production (VCWD 2021).

Every urban water supplier is required to assess its reliability to provide water service to its customers under normal, dry, and multiple dry water years. The 2020 UWMP states that VCWD will be able to meet projected demands between 2025 and 2040 during normal years, single dry years, and multiple dry years.

**Table 5.15-3 Normal, Single Dry, and Multiple Dry Year Supply and Demand (in acre-feet per year)**

	2025	2030	2035	2040
<b>NORMAL YEAR</b>				
Supply Totals	7,127	7,188	7,249	7,311
Demand Totals	6,651	6,707	6,765	6,822
<b>Surplus</b>	<b>476</b>	<b>480</b>	<b>484</b>	<b>488</b>
<b>SINGLE DRY YEAR</b>				
Supply Totals	6,374	6,374	6,374	6,374
Demand Totals	5,986	6,037	6,088	6,140
<b>Surplus</b>	<b>388</b>	<b>337</b>	<b>286</b>	<b>234</b>

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**Table 5.15-3 Normal, Single Dry, and Multiple Dry Year Supply and Demand (in acre-feet per year)**

	2025	2030	2035	2040
<b>MULTIPLE DRY YEAR</b>				
<b>Year 1</b>				
Supply Totals	6,374	6,374	6,374	6,374
Demand Totals	5,986	6,037	6,088	6,140
<b>Surplus</b>	<b>388</b>	<b>337</b>	<b>286</b>	<b>234</b>
<b>Year 2</b>				
Supply Totals	6,830	6,830	6,830	6,830
Demand Totals	5,986	6,037	6,088	6,140
<b>Surplus</b>	<b>845</b>	<b>793</b>	<b>742</b>	<b>690</b>
<b>Year 3</b>				
Supply Totals	7,236	7,236	7,236	7,236
Demand Totals	5,321	5,366	5,412	5,458
<b>Surplus</b>	<b>1,915</b>	<b>1,870</b>	<b>1,824</b>	<b>1,778</b>
<b>Year 4</b>				
Supply Totals	6,742	6,742	6,742	6,742
Demand Totals	5,321	5,366	5,412	5,458
<b>Surplus</b>	<b>1,421</b>	<b>1,376</b>	<b>1,330</b>	<b>1,284</b>
<b>Year 5</b>				
Supply Totals	6,871	6,871	6,871	6,871
Demand Totals	4,655	4,695	4,735	4,776
<b>Surplus</b>	<b>2,215</b>	<b>2,176</b>	<b>2,135</b>	<b>2,095</b>

Source: VCWD 2021.

#### *Water Distribution System*

The site is served by VCWD and is part of the Upper Baldwin Park Pressure Zone. There is a 12-inch line in Live Oak Lane as well as a 12-inch line in Arrow Highway near the site.

#### **5.15.2.2 THRESHOLDS OF SIGNIFICANCE**

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- U-1 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.
- U-2 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

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#### 5.15.2.3 APPLICABLE SPECIFIC PLAN DEVELOPMENT STANDARDS AND DESIGN GUIDELINES

##### Development Standards

The Specific Plan does not include specific development standards for water distribution systems in Chapter 6, Development Standards; however, Chapter 8, Utility Infrastructure, describes the water system requirements. Section 8.1, Water, provides a conceptual water plan and required project design features. All water service and connection to the distribution system shall be reviewed by VCWD.

##### Design Guidelines

The Specific Plan includes the following design guideline for all landscaping within the Specific Plan area:

- The use of drought tolerant and water efficient plant material.

#### 5.15.2.4 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance for which the Notice of Preparation disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.15-3: Buildout of the Specific Plan would not require or result in the relocation or construction of new or expanded water facilities the construction or relocation of which could cause significant environmental effects. [Threshold U-1 (part)]**

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##### Construction

VCWD would provide water delivery service to the project area. As shown on Figure 5.15-3a, *Conceptual Water Plan Option 1*, and Figure 5.15-3b, *Conceptual Water Plan Option 2*, the existing 12-inch VCWD main is located in Live Oak Lane. To service the proposed project with domestic water, including fire protection service and irrigated landscaping, a connection would be made to the existing line to service future buildings. Water and fire service could be provided with a private on-site loop system that connects to the existing water line in Live Oak Lane. Alternatively, VCWD may require new infrastructure to create a loop in its system through Live Oak Lane. All water service and connection to the distribution system would be reviewed by VCWD.

Construction impacts associated with the installation of water lines on-site would primarily involve trenching to place the lines. The construction-related environmental impacts associated with these improvements are analyzed throughout this DEIR since it is a component of the Specific Plan. The analysis herein focuses on off-site construction and whether VCWD would need to expand its water system to handle the demand generated by development accommodated by the Specific Plan.

Prior to ground disturbance, the Specific Plan's construction contractors would coordinate with VCWD to identify the locations and depth of all underground pipelines. VCWD would be notified in advance of proposed ground disturbance activities to avoid water lines and disruption of water service. The proposed water system improvements would also be designed and constructed in accordance with City and VCWD requirements and

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### UTILITIES AND SERVICE SYSTEMS

would require City and VCWD approval. Additionally, water needed for construction activities would occur intermittently throughout the construction period and would be temporary in nature, and required water for construction is generally trucked in.

Therefore, construction associated with the Specific Plan would not require or result in the relocation or construction of new or expanded water infrastructure the construction or relocation of which could cause significant environmental effects. Impacts would be less than significant.

#### **Operation**

Implementation of the Specific Plan would require local-serving infrastructure to be appropriately sized and installed in the project area. Water service to the project area would be provided by VCWD for domestic and fire protection uses. Prior to the issuance of building permits, the Los Angeles County Fire Department (LACFD) would be required to grant approval of the final building design, including all fire prevention and suppression systems, which would ensure the Specific Plan is developed pursuant to Fire Code requirements. In addition, on-site water connections would be constructed, as necessary, to comply with the fire flow set for the Specific Plan by LACFD during the plan check process.

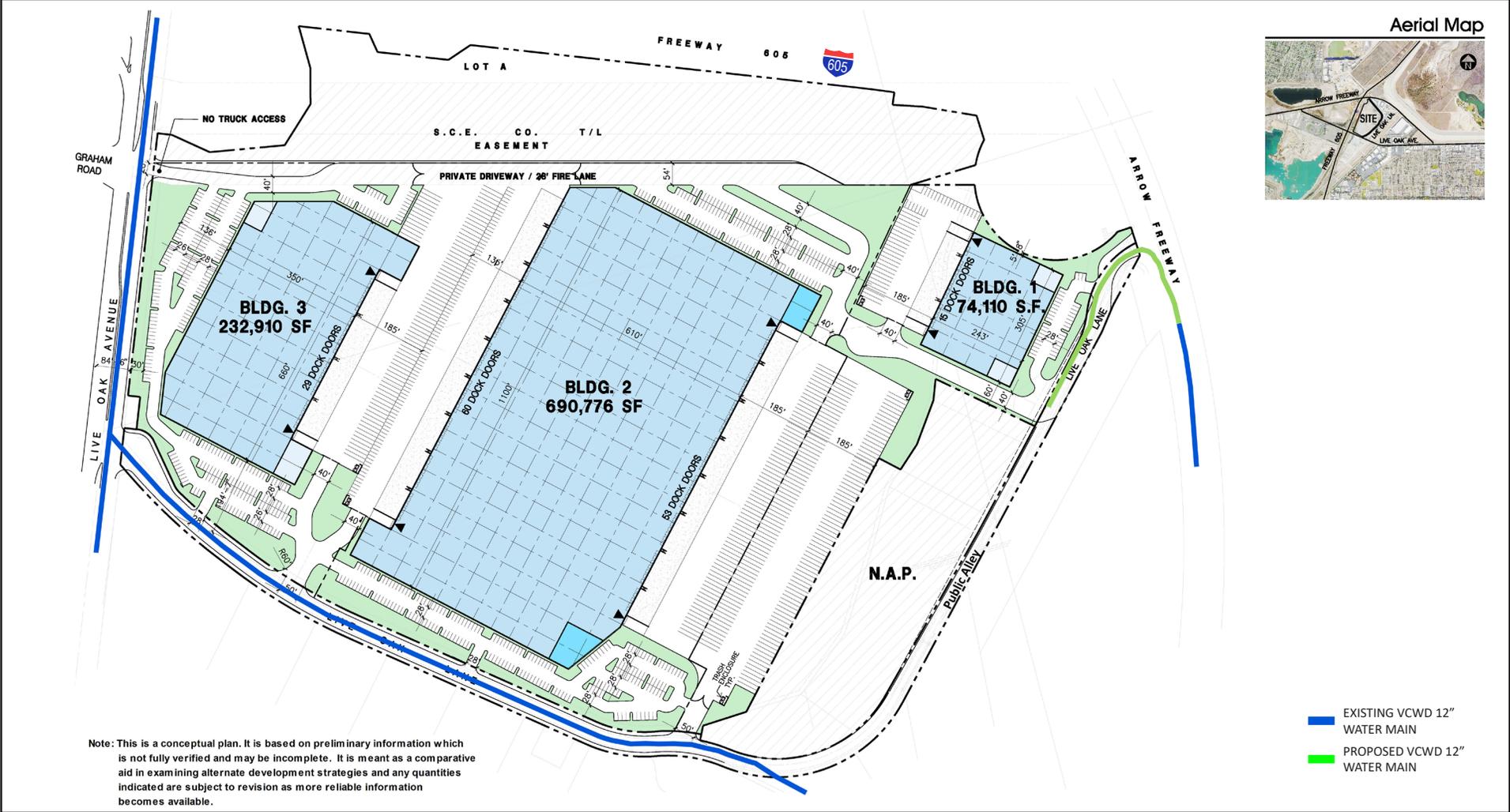
The proposed water distribution system would also abide by the requirements of Title 20 of the Los Angeles County Code of Ordinances. Additionally, during the engineering design and plan check process, the City and VCWD would assess the infrastructure needs of the Specific Plan to ensure that adequate water infrastructure is available.

Design of the Specific Plan would meet CALGreen requirements regarding water efficiency and conservation, as codified in Part 11 of Title 24 of the California Code of Regulations. Proposed development would also abide by the requirements of Chapter 3.16, Utilities Tax, Chapter 15.10, Green Building Standards Code, Chapter 15.16, Plumbing Code, and Chapter 15.30, Water Efficient Landscape Requirements and Guidelines, of the City's municipal code.

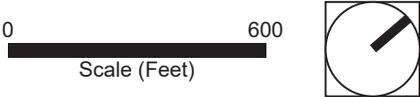
Therefore, implementation of the on-site water system improvements would not cause significant environmental effects, and impacts would be less than significant.

***Level of Significance Before Mitigation:*** Less than significant.

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Figure 5.15-3a - Conceptual Water Plan Option 1



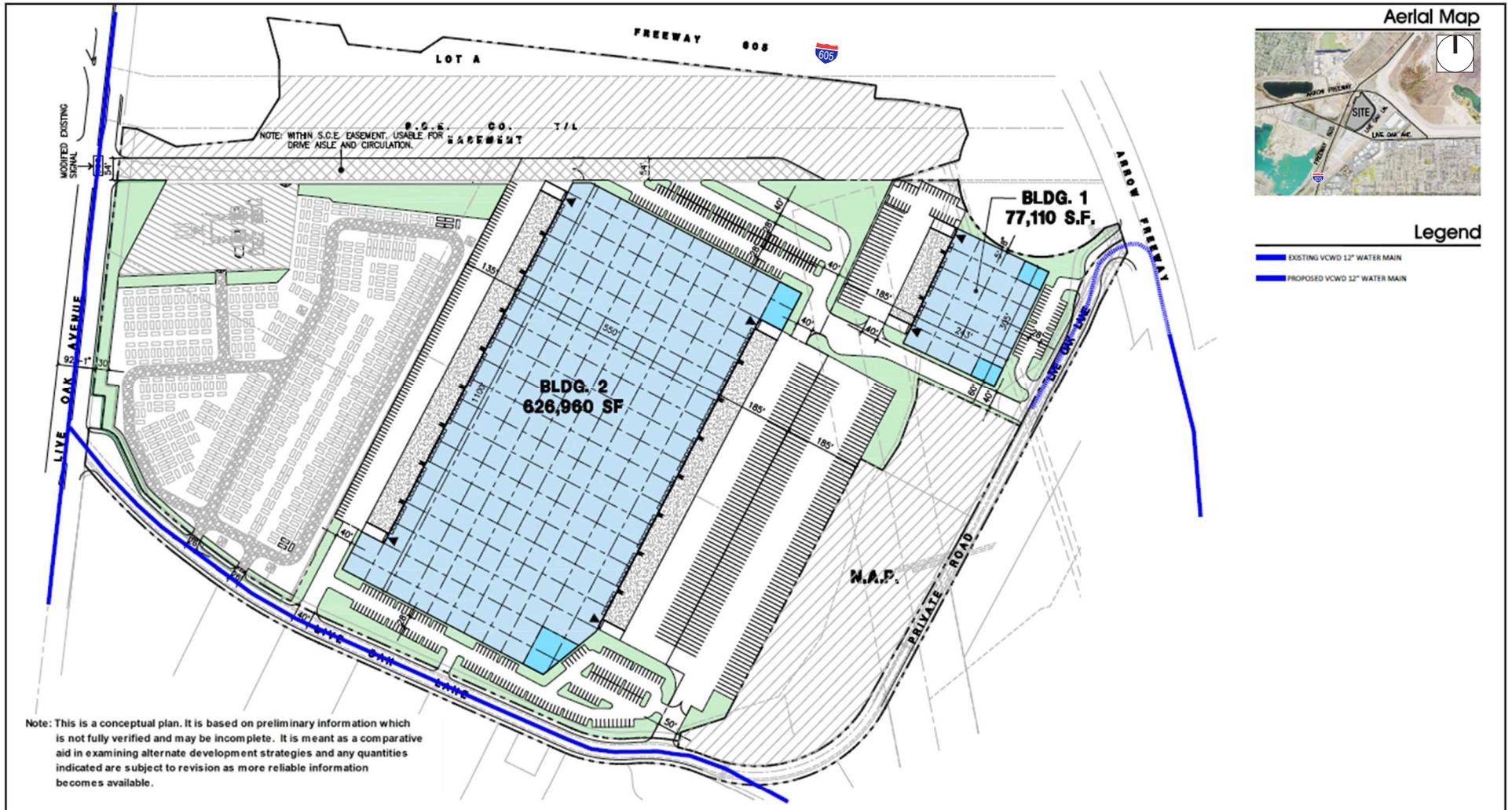
Source: KEARNY, 2023.



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### 5. Environmental Analysis Figure 5.15-3b - Conceptual Water Plan Option 2



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**Impact 5.15-4: Available water supplies are sufficient to serve buildout of the Specific Plan and reasonably foreseeable future development during normal, dry, and multiple dry years. [Threshold U-2]**

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#### Construction

Construction activities associated with the Specific Plan would result in a temporary increase in water demand. Water use would be associated with earthwork and soil compaction, dust control, mixing and placement of concrete, equipment and site cleanup, irrigation for plant and landscaping establishment, water line testing and flushing, and other related short-term activities. The amount of water used during construction would vary depending on weather, soil conditions, the size of the area under construction, and the specific activities being performed. These activities would occur intermittently throughout the construction period and would be temporary in nature, and required water would usually be trucked in. This short-term and intermittent water use during construction is not expected to be substantial when compared to operational water demands. Additionally, as concluded in VCWD's 2020 UWMP, projected water demand for the city will be met by available supplies during a normal year, single dry year, and multiple dry year hydrological conditions through 2040. Therefore, the Specific Plan's construction impacts on water supply would be less than significant.

#### Operation

Development of Option 1 of the Specific Plan would include three industrial warehouse buildings with a total of 997,796 square feet of warehouse and office floor space and 253,736 square feet of irrigated landscaping. Option 2 consists of two industrial warehouse buildings and the BESS. The two warehouse buildings would include approximately 704,070 square feet of warehouse (668,070 square feet) and office (36,000 square feet). The BESS would be outdoors on approximately 15.94 acres of the project site. Because the BESS is projected to have only minimal water demands compared to a third warehouse building, water demands are conservatively based on the projected water demands for Option 1.

The water demand for the warehouse buildings was estimated by using a water demand factor derived from the June 2022 Supplement to the WSA for the proposed Speedway Commerce Center II. The Speedway Commerce Center II project consists of seven industrial warehouse buildings with a total building size of 6,600,000 square feet. The estimated water demand for the proposed Speedway Commerce Center II project was based on a water demand factor of about 2,840 gpd per acre of building size for similarly sized industrial buildings (see Appendix M3). As shown in Table 5.15-4, development pursuant to the Specific Plan would have an indoor water demand of 65,054 gpd, or 73 AFY. It should be noted that the indoor water demand as calculated in the WSA is less than the wastewater generation calculated in the Sewer Area Study. This is because the Sewer Area Study accounts for peak flows and incorporates a factor of safety to ensure sewer lines are adequately designed to convey the most conservative sewer flow.

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**Table 5.15-4 Projected Water Demand**

Land Use	Area	Outdoor Water Demand (gpd)	Indoor Water Demand Rate (gpd/acre)	Indoor Water Demand (gpd)
Warehouse	22.9 acres	-	2,840	65,054
Landscaping	253,736 SF	20,355	-	-

Source: VCWD 2023; DWR 2017.  
Notes: SF = square feet; gpd = gallons per day

The landscape irrigation demand was estimated using the Water Budget Workbook for New and Rehabilitated Non-Residential Landscapes from DWR, with the following assumptions:

- An average Reference Evapotranspiration (ET<sub>o</sub>) of 55.1 inches per year per VCWD’s 2020 UWMP.
- A plant factor (PF) of 0.6 based on different landscaped areas consisting of turf, trees, shrubs, and groundcover.<sup>2</sup>
- An irrigation efficiency (IE) of 0.7 (representing rotor and standard drip irrigation).<sup>3</sup>

The total estimated outdoor water demand is 20,355 gpd, or 23 AFY (DWR 2017). Therefore, the total water demand for Specific Plan is 96 AFY.

In order for VCWD to provide 96 AFY to the project site, VCWD will need to produce water supplies that account for water losses in the distribution system. Pursuant to Water Loss Audits prepared by VCWD (pursuant to the California Water Code), VCWD’s water system losses have averaged approximately 5.5 percent from calendar year 2016 to calendar year 2021. Accounting for this average water loss, VCWD would need to produce approximately 101 AFY of water to supply 96 AFY to the project site. Based on VCWD records, there has not been any record of water use at the project site, so development under the Specific Plan would result in an increase in demand for VCWD water supplies. The Specific Plan’s water demand falls within the residual water supplies available to VCWD for normal, single-dry, and multiple-dry year over the next 20 years, as shown in Table 5.15-3. Therefore, available water supplies are sufficient to serve the Specific Plan and reasonably foreseeable future development during normal, dry, and multiple dry years. Impacts would be less than significant.

***Level of Significance Before Mitigation:*** Less than significant.

<sup>2</sup> The PF is a factor (generally from 0 to 1) for each type of irrigated plant and is based on the water requirements for the plant. Plants with a lower PF (0 to 0.3) require less water than plants with a higher PF (0.7 to 1.0). The PF for turf is approximately 0.7. The PF for medium water use trees, shrubs and groundcover is approximately 0.5.

<sup>3</sup> IE is a factor (generally from 0 to 1) which represents irrigation efficiency. Irrigation systems which are well designed and operated can have an efficiency range of 0.8 to 0.9. Irrigation systems which are poorly designed and operated may have efficiencies less than 0.5.

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### 5.15.2.5 CUMULATIVE IMPACTS

#### Water Supply

The geographic context for the cumulative impact analysis on water supply is VCWD's service area. VCWD is required to prepare and update its UWMP every five years to plan and provide water supplies to serve existing and projected demands over a 20-year horizon. The 2020 UWMP prepared by VCWD accounts for existing development within the service area as well as projected growth through the year 2040. As noted in Impact 5.15-4, VCWD has enough residual water supply to accommodate the Specific Plan in conjunction with cumulative projects in the City of Irwindale through 2040 as accounted for in the 2020 UWMP. Therefore, VCWD will be able to reliably provide water to its customers from 2020 through the year 2040.

Additionally, under the provisions of SB 610, VCWD is required to prepare a comprehensive water supply assessment for every new development "project" (as defined by Section 10912 of the Water Code) within its service area that meets certain thresholds. The types of projects that are subject to the requirements of SB 610 tend to be larger projects that may or may not have been included in the growth projections of the VCWD's 2020 UWMP. The water supply assessment for such projects would evaluate the quality and reliability of existing and projected water supplies, as well as alternative sources of water supply and measures to secure alternative sources if needed.

Compliance with regulatory requirements that promote water conservation, such as VCWD's Water Shortage Contingency Plan, the requirements of CALGreen, and the State and City's Water Efficient Landscape Ordinance, and implementation of other water saving strategies will assist in ensuring that adequate water supply is available on a cumulative basis. Therefore, it is anticipated that VCWD would be able to supply the demands of the Specific Plan and future growth through 2045 and beyond; cumulative impacts on the water supply would be less than significant.

#### Water Infrastructure

The geographic context for the cumulative impact analysis for water infrastructure is the project vicinity. Development accommodated by the Specific Plan and future new development in the project vicinity would cumulatively increase demands on the existing water conveyance system. However, as with the Specific Plan, new development projects would be subject to LACFD and the City's review to ensure that the existing public utility facilities would be adequate to meet the domestic and fire water demands of each project. Furthermore, individual projects would be subject to City requirements regarding infrastructure improvements needed to meet respective water demands, fire flow, and pressure requirements. LACFD and the City would conduct ongoing evaluations to ensure facilities are adequate. Therefore, cumulative impacts on the water infrastructure system would be less than significant.

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### 5.15.3 Storm Drainage Systems

#### 5.15.3.1 ENVIRONMENTAL SETTING

##### Regulatory Background

Federal, state, and local laws, regulations, plans, or guidelines related to storm drainage systems that are applicable to the Specific Plan are summarized below.

##### *Federal*

##### *National Pollution Discharge Elimination System*

The Clean Water Act mandates permits for stormwater discharges, and requirements for stormwater discharges are regulated under the NPDES program. In California, the NPDES permit program is administered by the State Water Resources Control Board through the nine regional boards. The planning area is in the jurisdiction of the Los Angeles RWQCB (Region 4).

##### *State*

##### *State Water Resources Control Board General Construction Permit*

The SWRCB adopted the revised Statewide Construction General Permit on September 8, 2022 (Order WQ 2022-0057-DWQ), which became effective on September 1, 2023. Under the terms of the permit, applicants must file Permit Registration Documents (PRD) with the SWRCB prior to the start of construction. The PRDs include a Notice of Intent, risk assessment, site map, Stormwater Pollution Prevention Plan (SWPPP), annual fee, and a signed certification statement. The PRDs are submitted electronically to the SWRCB via the Stormwater Multiple Application and Report Tracking System (SMARTS) website.

Applicants must also demonstrate conformance with applicable best management practices (BMP) and prepare a SWPPP containing a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project site. The SWPPP must list BMPs that would be implemented to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources. Additionally, the SWPPP must contain a weekly visual monitoring program and BMP inspections prior to, during, and after qualifying precipitation events. Water quality monitoring is also required with a schedule based on the risk level of the site.

##### *Regional*

##### *Los Angeles RWQCB (MS4) Permit for the Coastal Watershed of Los Angeles and Ventura Counties*

On July 23, 2021, the Los Angeles RWQCB adopted a Regional Phase I Municipal Separate Stormwater Sewer System (MS4) Permit for discharges within the coastal watersheds of Los Angeles and Ventura counties (Order No. R4-2021-0105, NPDES No. CAS004004). The municipal discharges of stormwater and nonstorm water by the City are subject to waste discharge requirements in this MS4 permit.

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### *Los Angeles County Department of Public Works Hydrology Manual*

The Los Angeles County Department of Public Works' hydrology manual establishes hydrologic design procedures and contains charts, graphs, and tables necessary to conduct a hydrologic study in the county of Los Angeles. The manual contains procedures and standards developed and revised by the Water Resources Division based on historical rainfall and runoff data collected in the county. The hydrologic techniques in the manual apply to the design of local storm drains, retention and detention basins, pump stations, and major channel projects. Standards in the manual govern all hydrology calculations under the County's jurisdiction.

### *Local*

### *City of Irwindale Municipal Code*

**Chapter 8.28, Stormwater and Runoff Pollution Control.** The provisions of this section contain requirements for construction activities and new development/redevelopment projects to ensure that they comply with the current NPDES permit and the provisions to lessen water quality impacts of development by using smart growth practices and integrating Low Impact Design (LID) design principles.

### **Existing Conditions**

The existing on-site condition consists of graded land that sheet flows west to two existing detention basins/pits. The overall drainage flows southwest toward I-605 with an average slope of 3 percent (see Figure 5.9-1, *Existing Conditions Hydrology Map*). The on-site area is mostly pervious, with an impervious asphalt layer in several locations. The impervious ratio for the site is approximately 25 percent. Prior to the use of the project site as a quarry, stormwater flowed across the site from the north and east to the southwest and would leave the site at its southwest corner and discharge to culverts beneath Live Oak Avenue. These existing storm drain facilities are no longer used.

### **5.15.3.2 THRESHOLDS OF SIGNIFICANCE**

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

- U-1            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.

### **5.15.3.3 APPLICABLE IRWINDALE GATEWAY SPECIFIC PLAN DEVELOPMENT STANDARDS AND DESIGN GUIDELINES**

#### **Development Standards**

The Specific Plan does not include specific development standards for water distribution systems in Chapter 6, Development Standards; however, Chapter 8, Utility Infrastructure, describes the stormwater drainage requirements. Section 8.3, Storm Water Drainage, provides a conceptual stormwater management plan and

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required project design features. All LID and BMP features shall comply with the City of Irwindale Building Code and will require grading and drainage permits from the Building & Safety Division.

#### Design Guidelines

There are no Specific Plan design guidelines pertaining to stormwater systems.

#### 5.15.3.4 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance for which the Notice of Preparation disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.16-5: Development accommodated by the Specific Plan would not require or result in the relocation or construction of new or expanded stormwater facilities the construction or relocation of which could cause significant environmental effects. [Threshold U-1 (part)]**

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The analysis in the Preliminary Hydrology Report (see Appendix M1) represents the hydrology and hydraulic analysis for Option 1. The proposed Option 1 contains a larger impervious area than Option 2 since the BESS site is anticipated to have a similar drainage pattern with minimal to no pavement; however, the current design is preliminary and surface type may change. Therefore, the analysis in the Preliminary Hydrology Report is conservative.

Overall, the developed condition hydrology would follow the existing condition surface flow pattern, where drainage continues to flow south to the proposed detention basin. The existing pits would be hydraulically connected through storm drainpipes. The proposed drainage areas are shown on Figure 5.9-3, *Proposed Conditions Hydrology Map*. The project site is subdivided into four drainage areas. The on-site drainage areas, A-1 through A-3, would drain to the detention basin. Runoff from the 85th percentile storm event<sup>4</sup> would drain from the detention basins into two dry wells<sup>5</sup> on the northwest boundary, adjacent to the basin and I-605 for on-site retention. Any excess runoff would be directed to Line E on Live Oak Avenue, which outfalls to the San Gabriel River to the east of the project. The proposed on-site and off-site drainage can be described in five subdrainage areas:

- **Area A1** refers to the northerly drainage area that includes off-site drainage from the existing commercial site, proposed buildings 3 and 2, and pavement from parking stalls and drive aisles. The runoff would sheet flow to nearby catch basins, into the underground storm drain system, and into the proposed detention basin.

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<sup>4</sup> The MS4 Permit requires designated projects to retain, on-site, the Stormwater Quality Design Volume from a design storm event. The design storm event is determined using the 0.75-inch 24-hour rain event or the 85th percentile 24-hour rain event, whichever is greater.

<sup>5</sup> Dry wells are underground structures that disposes of unwanted water, most commonly surface runoff and stormwater. It is a gravity-fed, vertical underground system that can capture surface water from impervious surfaces, then store and gradually infiltrate the water into the groundwater aquifer.

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- **Area A2.1** refers to the on-site drainage in the middle of the site. This drainage area would include drainage from building 2, building 1, and pavement from the parking aisles and stalls. Stormwater will first drain to nearby catch basins into the underground storm drain and then into proposed detention basin.
- **Area A2.2** refers to the on-site drainage on the westerly side of the site. The drainage area includes drainage from building 1 and pavement from the parking aisles and stalls. Stormwater enters the underground storm drain system through catch basins and then drains to the proposed detention basin.
- **Area A3** refers to the on-site drainage area that makes up the proposed detention basin. The basin is considered self-retaining and does not affect the on-site storm drain system. The basin manages stormwater volumes for the proposed dry wells for the 85th percentile storm.
- **Area A4** refers to the off-site area on the east side of the project site. The drainage area includes runoff from the existing businesses on Live Oak Lane and the existing street width, which includes the improved sections that are part of the Specific Plan development. Stormwater follows the existing flow path, draining south toward Live Oak Avenue, along the street gutters on Live Oak Lane. Stormwater for this drainage area would first flow into four modular wetlands systems and then into a catch basin. Water would drain into a proposed storm drain line that would connect to Line E on Live Oak Lane and drain to the San Gabriel River.

The County Department of Public Works requires that the proposed basin regulate peak flows from the 50-year 24-hour storm event so that the post-development runoff does not exceed 1 cfs/acre. The project site, as analyzed in the Preliminary Hydrology Report, is 66.9 acres, so the allowable maximum peak runoff flow is 66.9 cfs.<sup>6</sup> The 50-year 24-hour post-development flow for the Specific Plan development is 12 cfs. Additionally, the proposed storm drain on Live Oak Avenue (Line E) would have a design capacity of 45.3 cfs and would convey runoff from the project site and drainage area A4. Drainage area A4 would have a peak flow rate of 27.96 cfs for the 50-year 24-hour storm event. Therefore, Line E would receive a total of 39.96 cfs and would be adequately designed to convey this flow.

With the implementation of the on-site detention basin and the modular wetlands systems, the Specific Plan would not require or result in the relocation or construction of new or expanded stormwater facilities. The calculated stormwater runoff volume for the 50-year 24-hour storm event under post-development conditions can be accommodated by the on-site storm drain system. Therefore, impacts were determined to be less than significant.

***Level of Significance Before Mitigation:*** Less than significant.

#### 5.15.3.5 CUMULATIVE IMPACTS

Cumulative projects in the Rio Hondo watershed could increase impervious areas and thus increase local runoff volumes at those project sites. However, cumulative projects in the region would be required to capture and infiltrate runoff as applicable in accordance with the NPDES MS4 permit. Compliance with the MS4 permit

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<sup>6</sup> The project site is 66.64 acres, so the analysis in the Preliminary Hydrology Report is conservative.

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would ensure projects retain a specified volume of stormwater runoff from a design storm event on-site, and the County's LID Standards Manual provides guidance on how projects can meet these on-site retention requirements using stormwater quality control measures. Projects in the region would also be required to limit post-development runoff discharges per the requirements of Los Angeles County Hydrology Manual and the Los Angeles County Hydraulic Design Manual. These measures minimize the potential for exceeding the capacity of existing or planned stormwater drainage systems. No significant cumulative drainage impact would occur, and the Specific Plan's drainage impacts would not be cumulatively considerable.

#### 5.15.4 Solid Waste

##### 5.15.4.1 ENVIRONMENTAL SETTING

###### Regulatory Background

Federal, state, and local laws, regulations, plans, or guidelines related to solid waste that are applicable to the Specific Plan are summarized below.

###### *Federal*

###### *Resource Conservation and Recovery Act*

The Resource Conservation and Recovery Act of 1976 (Title 40 of the Code of Federal Regulations), Part 258, contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the federal landfill criteria. The federal regulations address the location, operation, design (liners, leachate collection, run-off control, etc.), groundwater monitoring, and closure of landfills.

###### *State*

###### *Assembly Bill 939*

Assembly Bill (AB) 939 (California Integrated Solid Waste Management Act of 1989; Public Resources Code Section 40050 et seq.) established an integrated waste-management system that focused on source reduction, recycling, composting, and land disposal of waste. AB 939 required every California city and county to divert 50 percent of its waste from landfills by the year 2000. Compliance with AB 939 is measured in part by comparing solid waste disposal rates for a jurisdiction with target disposal rates; actual rates at or below target rates are consistent with AB 939. AB 939 also requires California counties to show 15 years of disposal capacity for all jurisdictions in the county or show a plan to transform or divert its waste.

###### *Assembly Bill 341*

AB 341 (Chapter 476, Statutes of 2011) increased the statewide solid waste diversion goal to 75 percent by 2020. AB 341, which was passed in 2011 and took effect July 1, 2012, mandates recycling for businesses producing four or more cubic yards of solid waste per week or multi-family residential dwellings of five or more units. Under AB 341, businesses and multifamily dwellings of five or more units must separate recyclables from trash and either subscribe to recycling services, self-haul their recyclables, or contract with a permitted private recycler.

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### *Assembly Bill 1327*

The California Solid Waste Reuse and the Recycling Access Act of 1991 (AB 1327) is codified in Public Resources Code Sections 42900 to 42911. As amended, AB 1327 requires each local jurisdiction to adopt an ordinance requiring commercial, industrial, institutional, and residential buildings having five or more living units to provide an adequate storage area for the collection and removal of recyclable materials. The size of these storage areas is determined by the appropriate jurisdictions' ordinance.

### *Organic Waste Methane Emissions Reduction Act (Senate Bill 1383)*

In September 2016, SB 1383 was signed into law establishing methane emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants in various sectors of California's economy. SB 1383 establishes goals to reduce the landfill disposal of organics by achieving a 50 percent reduction in the 2014 level of statewide disposal of organic waste by 2020 and a 75 percent reduction by 2025. SB 1383 grants CalRecycle the regulatory authority to achieve the organic waste disposal reduction targets and establishes an additional target that at least 20 percent of currently disposed edible food must be recovered for human consumption by 2025.

As of January 2022, SB 1383 affects all generators of organic waste, including businesses, institutions, and non-profit organizations, multi-family property owners or managers of buildings with five or more units, residents in single-family homes, apartments, and condos, public and private schools, and government agencies, such as State agencies and park districts. All generators must be provided with curbside organics service.

### *Assembly Bill 1826*

Assembly Bill 1826 currently requires businesses and multifamily complexes that generate two or more cubic yards of solid waste, recycling, and organic waste combined per week to start recycling organic waste. Single-family dwellings are not required to have a food waste diversion program. This requirement was instated by CalRecycle to meet the target set by SB 1383.

### *California Green Building Standards Code*

Section 5.408 (Construction Waste Reduction, Disposal, and Recycling) of CALGreen requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse. CALGreen is updated on a three-year cycle; the 2022 CALGreen took effect on January 1, 2023.

### *Regional*

#### *County of Los Angeles Countywide Integrated Waste Management Plan*

The County Integrated Waste Management Plan comprises the solid waste reduction planning documents produced by the County and its cities. To assess compliance with AB 939, a Disposal Reporting System was established to measure the amount of disposal from each jurisdiction. Comparing current disposal rates to base year solid waste generation determines whether each jurisdiction complies with the diversion mandate. Additionally, the siting element is a long-term planning document that describes how the County and the cities

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in the county plan to manage the disposal of their solid waste for a 15-year planning period. The siting element contains goals and policies on a variety of solid waste management issues.

#### *Local*

##### *City of Irwindale Municipal Code*

**Chapter 8.20, Solid Waste Collection and Salvage of Recyclable Material**, regulates the collection of solid waste from commercial/industrial and residential premises and encourages recycling of solid waste materials.

**Chapter 15.10, Green Building Standards Code**, adopts by reference the most current CALGreen Building Code. CALGreen applies to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure in California, unless otherwise indicated in the code.

### Existing Conditions

#### *Solid Waste Collection*

The City has an exclusive franchise agreement with Athens Services to provide mixed waste collection services and other available programs to its residents and business community. Athens Services currently transports all of Irwindale's commercial waste to a materials recovery facility, where recyclable materials are sorted and diverted from local landfills.

#### *Solid Waste Disposal*

In 2019, approximately 82 percent of the municipal solid waste landfilled from the city was disposed of at the Mid-Valley Sanitary Landfill, San Timoteo Sanitary Landfill, Azusa Land Reclamation Landfill, Simi Valley Landfill, and El Sobrante Landfill (CalRecycle 2019a). Waste Management Inc. (WM) owns and operates the Azusa Land Reclamation Landfill, the Simi Valley Landfill, and the El Sobrante Landfill. WM stated that the Azusa Land Reclamation Landfill does not accept municipal solid waste (Kingsbury 2023). Operational solid waste can be accepted at the Simi Valley Landfill (Bol 2021). The El Sobrante Landfill would also accept operational solid waste from the proposed project (Lockhart 2023). The County of San Bernardino owns and operates the Mid-Valley Sanitary Landfill and the San Timoteo Sanitary Landfill. The County noted that solid waste from the projects in Irwindale would need to be conveyed to landfills in Los Angeles County (Meeka 2021).

Capacity and disposal data for the El Sobrante Landfill and Simi Valley Landfill are shown in Table 5.15-5. As shown in the table, the landfills have a combined residual capacity of approximately 10,598 tons per day.

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**Table 5.15-5 Landfill Capacity**

Landfill	Current Remaining Capacity (tons) <sup>1</sup>	Maximum Daily Disposal Capacity (tons)	Average Daily Disposal, 2019 (tons) <sup>2</sup>	Residual Daily Disposal Capacity (tons)	Estimated Close Date
Simi Valley Landfill	82,954,873	10,791	3,350	7,441	2063
El Sobrante Landfill	143,977,170	16,054	8,293	7,761	2051
<b>Total</b>	<b>226,932,043</b>	<b>26,845</b>	<b>11,643</b>	<b>15,202</b>	<b>NA</b>

Sources: CalRecycle 2019b, 2019c, 2019d.

<sup>1</sup> A volume-to-weight conversion rate of 2,000 lbs/cubic yard (1 ton/cubic yard) for "Compacted - MSW Large Landfill with Best Management Practices" is used according to CalRecycle's 2016 Volume-to-Weight Conversion Factors, [https://www.epa.gov/sites/production/files/201604/documents/volume\\_to\\_weight\\_conversion\\_factors\\_memo\\_randum\\_04192016\\_508fnl.pdf](https://www.epa.gov/sites/production/files/201604/documents/volume_to_weight_conversion_factors_memo_randum_04192016_508fnl.pdf).

<sup>2</sup> Average daily disposal is calculated based on 300 operating days per year.

Collectively, the two landfills have a remaining disposal capacity of approximately 226.9 million tons and a residual daily throughput of 15,202 tons per day. All the landfills have a disposal capacity beyond the 15-year horizon, as required by AB 939.

**5.15.4.2 THRESHOLDS OF SIGNIFICANCE**

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- U-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.
- U-5 Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

**5.15.4.3 APPLICABLE SPECIFIC PLAN DEVELOPMENT STANDARDS AND DESIGN GUIDELINES**

**Development Standards**

There are no Specific Plan development standards pertaining to solid waste systems.

**Design Guidelines**

There are no Specific Plan design guidelines pertaining to solid waste systems.

**5.15.4.4 ENVIRONMENTAL IMPACTS**

The following impact analysis addresses thresholds of significance for which the Notice of Preparation disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.15-6: Solid waste generated by development accommodated by the Specific Plan would not be 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. [Thresholds U-4]**

#### Construction

Construction associated with the development accommodated by the Specific Plan would result in solid waste associated primarily with grading and grubbing activities, and the removal of organic and other materials potentially detrimental to soil compaction. There would be relatively minimal construction demolition debris generated. Additionally, construction activities would result in the generation of construction waste, including that generated by construction employees.

Development accommodated by the Specific Plan would be constructed in accordance with CALGreen, which requires recycling a minimum of 65 percent of the nonhazardous construction and demolition debris (by weight or volume). CALGreen also mandates the preparation of a solid waste management plan, which would be implemented for construction activities. Therefore, construction associated with the Specific Plan would not generate solid waste in excess of state and local standards nor exceed the capacity of local infrastructure and impacts from construction waste would be less than significant.

#### Operation

Operation of the Specific Plan at buildout is estimated to generate 1,396 pounds per day (ppd) of solid waste, based on CalRecycle's standard waste generation rates, as shown in Table 5.15-6 (CalRecycle 2019g). Option 1 is anticipated to generate more solid waste than Option 2 and is conservatively analyzed here.

**Table 5.15-6 Estimated Solid Waste Generation**

Land Use	Buildout (SF)	Solid Waste Generation Rate (lb/SF/day)	Solid Waste Generation (ppd)
Warehouse	997,796	1.42	1,417

Source: CalRecycle 2019g.

Notes: ppd = pounds per day; SF = square feet; lb = pounds

As detailed in Table 5.15-6, the two landfills serving the city have a residual daily capacity of 15,202 tons per day (or 30.4 million ppd). The Specific Plan's estimated 1,396 ppd equates to a fraction of 1 percent of available capacity of the two landfills serving the project area; therefore, development accommodated by the Specific Plan would be adequately served by these landfills.

Solid waste facilities would be able to accommodate project-generated solid waste. The Specific Plan would not 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. Therefore, impacts would be less than significant.

**Level of Significance Before Mitigation:** Less than significant.

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### **Impact 5.16-7: Project-generated solid waste would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. [Thresholds U-5]**

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Construction and operation phases of the Specific Plan would be implemented in accordance with all applicable federal, state, and local laws and regulations governing solid waste disposal. For example, the project would comply with the following federal, state, and local laws and regulations that govern solid waste disposal:

- The Resource Conservation and Recovery Act of 1976 and the Solid Waste Disposal Act of 1965, which govern solid waste disposal.
- AB 939 (Integrated Solid Waste Management Act of 1989; Public Resources Code 40050 et seq.), which required diversion of 50 percent of waste from landfills and required each county to provide landfill capacity for a 15-year period.
- AB 1327 (California Solid Waste Reuse and Recycling Access Act of 1991), which requires local agencies to adopt ordinances mandating the use of recyclable materials in development projects.
- AB 1826, which mandates that businesses that generate two or more cubic yards of solid waste, recycling, and organic waste combined per week to start recycling organic waste.
- AB 341, which mandates separating recyclables from trash and either subscribing to recycling services, self-hauling their recyclables, or contracting with a permitted private recycler.
- Chapter 8.20 and Chapter 5.10 of the City’s municipal code, which govern solid waste collection and salvage of recyclable material and adopt the California Green Building Standards Code by reference.

In addition, as shown in Impact 5.15-6 above, the Specific Plan’s solid waste can be adequately accommodated in landfills serving the project area. Therefore, impacts would be less than significant.

***Level of Significance Before Mitigation:*** Less than significant.

#### **5.15.4.5 CUMULATIVE IMPACTS**

The area considered for cumulative impacts is the area serviced by the two landfills listed in Table 5.15-5. Collectively, these landfills have a remaining disposal capacity of approximately 15.2 million tons. All the landfills have a disposal capacity beyond the 15-year horizon, as required by AB 939 to account for future demand and ensure adequate capacity. Additionally, all cumulative projects would divert construction waste per CALGreen requirements and abide by the requirements of SB 1383 and AB 341 as applicable. Thus, there is sufficient landfill capacity in the region for the cumulative increase in solid waste disposal. Cumulative impacts would be less than significant, and project impacts would not be cumulatively considerable.

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### 5.15.5 Other Utilities

#### 5.15.5.1 ENVIRONMENTAL SETTING

##### Regulatory Background

State and local laws, regulations, plans, or guidelines related to other utilities and potentially applicable to the Specific Plan are summarized below.

##### *State*

##### *California Energy Commission*

The California Energy Commission (CEC) was created in 1974—as the California Energy Resources Conservation and Development Commission—to be the state’s principal energy planning organization and meet the energy challenges of the 1973 oil embargo. The CEC is charged with six basic responsibilities when designing state energy policy:

- Forecast statewide electricity needs.
- License power plants to meet those needs.
- Promote energy conservation and efficiency measures.
- Develop renewable energy resources and alternative energy technologies.
- Promote research, development, and demonstration.
- Plan for and direct the state’s response to energy emergencies.

##### *California Energy Benchmarking and Disclosure (AB 802)*

On October 8, 2015, AB 802 directed the CEC to establish a statewide energy benchmarking and disclosure program and enhanced the CEC’s existing authority to collect data from utilities and other entities for the purposes of energy forecasting, planning, and program design. Among the specific provisions, AB 802 requires utilities to maintain records of the energy usage data of all buildings to which they provide service for at least the most recent 12 complete months. AB 802 requires each utility, upon the request and authorization of the owner, owner’s agent, or operator of a covered building, to deliver or provide aggregated energy usage data for a covered building to the owner, owner’s agent, operator, or to the owner’s account in the Energy Star Portfolio Manager, subject to specified requirements. AB 802 also authorized the CEC to specify additional information to be delivered by utilities for certain purposes.

##### *California Building Code: Building Energy Efficiency Standards*

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 (California Code of Regulations, Title 24, Part 6). The standards require the design of building shells and building components to conserve energy. They are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods.

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The 2022 Building Energy Efficiency Standards were approved by the California Building Standards Commission in December 2021 and became effective January 1, 2023. The 2022 standards require mixed-fuel single-family homes to be electric-ready to accommodate replacement of gas appliances with electric appliances. In addition, the new standards also include prescriptive photovoltaic system and battery requirements for high-rise, multifamily buildings (i.e., more than three stories) and noncommercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers.

### ***California Building Code: CALGreen***

CALGreen was adopted as part of the California Building Standards Code and established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), as well as water conservation and material conservation, both of which contribute to energy conservation. The 2022 CALGreen standards became effective January 1, 2023.

### ***2012 Appliance Efficiency Regulations***

The 2012 Appliance Efficiency Regulations (California Code of Regulations Title 20, Sections 1601 through 1608) include standards for both federally regulated appliances and non-federally regulated appliances. Though these regulations are now often viewed as “business as usual,” they exceed the standards imposed by all other states, and they reduce energy demand as well as GHG emissions.

### ***State Greenhouse Gas Regulations***

Current State of California guidance and goals for reductions in GHG emissions from stationary sources are generally embodied in Executive Orders S-03-05 and B-30-15, AB 32 and AB 197, and SB 32. While these regulations are aimed at reducing GHG emissions, they have a direct relationship to energy conservation. A detailed discussion of these regulations is provided in Section 5.6, *Greenhouse Gas Emission*, of this EIR.

## **Existing Conditions**

The project site is within the service area of Southern California Edison (SCE) and Southern California Gas Company (SoCalGas).

### ***Electricity***

SCE’s service area spans much of Southern California—from Orange and Riverside counties in the south to Santa Barbara County in the west to Mono County in the north. Total electricity consumption in SCE’s service area in gigawatt-hours (GWh) was 106,063 GWh in 2021 (CEC 2023a).<sup>7</sup> Sources of electricity sold by SCE in 2020, the latest year for which data are available, were:

- 31.4 percent renewable, consisting mostly of solar and wind
- 2.3 percent large hydroelectric
- 22.3 percent natural gas

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<sup>7</sup> One GWh is equivalent to one million kilowatt-hours.

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- 9.2 percent nuclear
- 34.6 percent unspecified sources—that is, not traceable to specific sources (SCE 2021)

#### *Natural Gas*

SoCalGas provides natural gas to the City of Irwindale. SoCalGas' service area spans much of the southern half of California, from Imperial County on the southeast to San Luis Obispo County on the northwest, to part of Fresno County on the north, to Riverside County and most of San Bernardino County on the east. The total gas consumption in the SoCalGas service area was approximately 7,473 million therms in 2021 (CEC 2023b).

#### *Telecommunications*

Communication services are offered regionally by franchised telecommunications providers such as AT&T and Spectrum.

#### **5.15.5.2 THRESHOLDS OF SIGNIFICANCE**

Appendix G of the CEQA Guidelines states that a project would have a significant effect on the environment with respect to other utilities if the project would:

- U-1            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.

#### **5.15.5.3 APPLICABLE IRWINDALE GATEWAY SPECIFIC PLAN DEVELOPMENT STANDARDS AND DESIGN GUIDELINES**

##### **Development Standards**

The Specific Plan does not include specific development standards for electricity, gas, and communication systems in Chapter 6, Development Standards; however, Chapter 8, Utility Infrastructure, describes the dry utilities requirements. Section 8.4, Dry Utilities, provides a conceptual dry utilities plan and required project design features. All dry utilities internal to the Specific Plan area would be installed underground in a joint utility trench. The locations of lateral connections, transformers, switches, pull boxes, and dry utility manholes will be determined at the time buildings are positioned in conjunction with implementing development.

For Option 2, the BESS facilities would include an on-site collector substation that would connect via a 230 kV overhead electric tie-line to a Point of Interconnection (POI) at the existing SCE Edison Rio Hondo Substation south of Live Oak Avenue. The tie-line would be supported by steel poles up to 150 feet high as needed to provide required clearance distances from the existing electric transmission and distribution lines between the BESS and the warehouse building and the POI.

##### **Design Guidelines**

There are no Specific Plan design guidelines pertaining to electricity, natural gas, or telecommunications systems.

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### UTILITIES AND SERVICE SYSTEM

#### 5.15.5.4 ENVIRONMENTAL IMPACTS

The following impact analysis addresses the thresholds of significance; the applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.15-8: Existing facilities would be able to accommodate project-generated electricity and gas demands and would not require the relocation or construction of new or expanded electricity, natural gas or telecommunication facilities. [Threshold U-1 (part)]**

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Development pursuant to the Specific Plan would connect to existing electric, gas, and communication systems installed within Live Oak Avenue, Arrow Highway, and Live Oak Lane. All dry utilities internal to the Specific Plan area would be installed underground.

#### Electricity

##### *Construction*

As shown on Figure 5.15-4a, *Proposed Dry Utilities Option 1*, and Figure 5.15-4b, *Proposed Dry Utilities Option 2*, the proposed project would connect to existing dry utilities (electric, gas, and communication systems) installed in Live Oak Avenue. All dry utilities internal to the project area would be installed underground in a joint utility trench.

The BESS facilities would include an on-site collector substation that would connect via a 230 kV overhead electric tie-line to a POI at the existing SCE Rio Hondo Substation south of Live Oak Avenue. The tie-line would be supported by steel poles up to 150 feet high as needed to provide required clearance distances from the existing electric transmission and distribution lines located between the BESS and proposed warehouse buildings and the POI.

Construction activities would require electricity use to power the construction equipment. The electricity use during construction would vary during different phases of construction; most of the construction equipment during grading would be gas or diesel powered, and later construction phases would require electricity-powered equipment such as nail guns for interior construction and sprayers for architectural coatings. Overall, the use of electricity would be temporary and would fluctuate according to the phase of construction. It is anticipated that most of the electric-powered construction equipment would be hand tools (e.g., power drills, table saws, compressors) and lighting, which would result in minimal electricity usage during the approximately 23 months of construction activities. Electrical energy would be available for use during construction from the existing power lines and connections available in the project site, potentially including temporary power poles. Therefore, impacts would be less than significant.

##### *Operation*

Electricity service to the project site would be provided by SCE through connections to existing off-site electrical lines. Implementation of the proposed project would result in a net increase in electricity use of 11,059,992 kilowatt-hours per year, or 11 GWh/year, for Option 1, and 9,484,030 kilowatt-hours per year, or 9.5 GWh/year for Option 2 (see Section 5.4, *Energy*, Tables 5.4-3, *Operation-Related Electricity Consumption [Option*

## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEMS

1], and 5.4-4, *Operation-Related Electricity Consumption [Option 2]*). While the Specific Plan would increase energy demand at the site compared to existing conditions, all development would be required to comply with the latest applicable Building Energy Efficiency Standards and CALGreen.

Total electricity consumption in SCE's service area is forecast to increase by approximately 22,713 GWh between 2021 and 2035 (CEC 2023a). SCE forecasts that it will have sufficient electricity supplies to meet demands in its service area, and the proposed project's net increase in electricity demand for both options accounts for less than 1 percent of SCE's total demand. Therefore, project development would not require SCE to obtain new or expanded electricity supplies; impacts would be less than significant.

#### Natural Gas

Project operation would generate an estimated net increase in natural gas demand of 21,472,596 kBTU per year, or 214,777 therms per year, for Option 1, and 15,810,691 kBTU per year, or 158,144 therms per year, for Option 2 (see Section 5.4, *Energy*, Tables 5.4-5, *Operational-Related Electricity Consumption [Option 1]*, and 5.4-6, *Operational-Related Electricity Consumption [Option 2]*). Total gas consumption in SoCalGas's service area is forecast to increase by approximately 199 million therms between 2021 and 2035 (CEC 2023a). The natural gas demand from the Specific Plan development for both options would represent less than 1 percent of the overall demand in SoCalGas's service area.

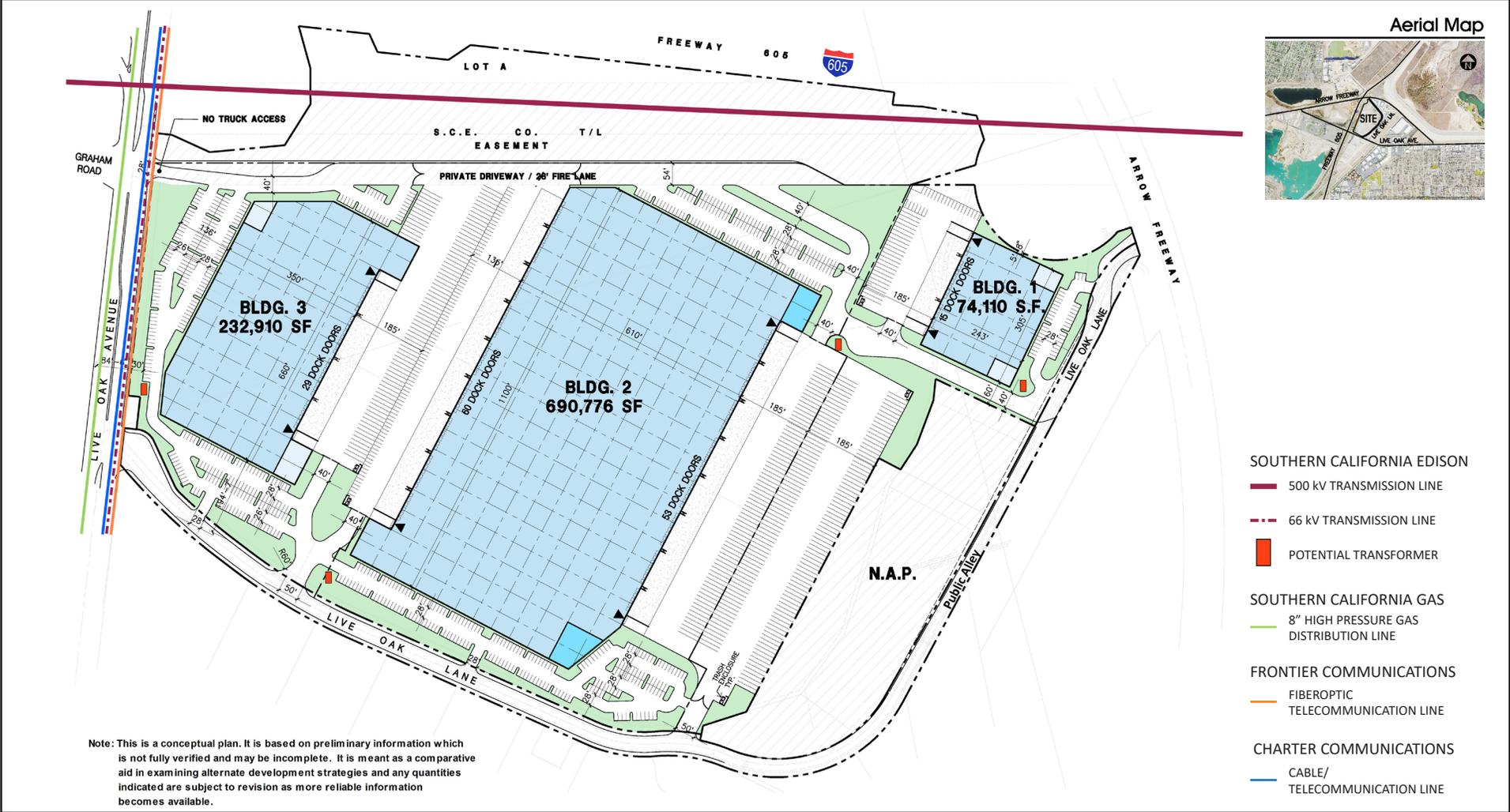
Therefore, the proposed project would not result in a substantial increase in natural gas demand, and SoCalGas would not need to expand its supply and transmission facilities in order to handle the demand generated by the proposed project. Therefore, impacts would be less than significant.

#### Telecommunications

Infrastructure supporting telecommunications services would be provided and installed on-site. Concealed wireless telecommunications facilities would be installed pursuant to the requirements of the Irwindale Municipal Code. Installation of telecommunication infrastructure would result in physical impacts to the surface and subsurface of the project site. These impacts are part of the project's construction phase and are evaluated throughout this Draft EIR. A number of franchised telecommunications providers are available in the region, and no significant expansion or construction of the telecommunications network is anticipated. Therefore, impacts would be less than significant.

***Significance After Mitigation:*** Less than significant impact.

5. Environmental Analysis  
Figure 5.15-4a - Proposed Dry Utilities Option 1

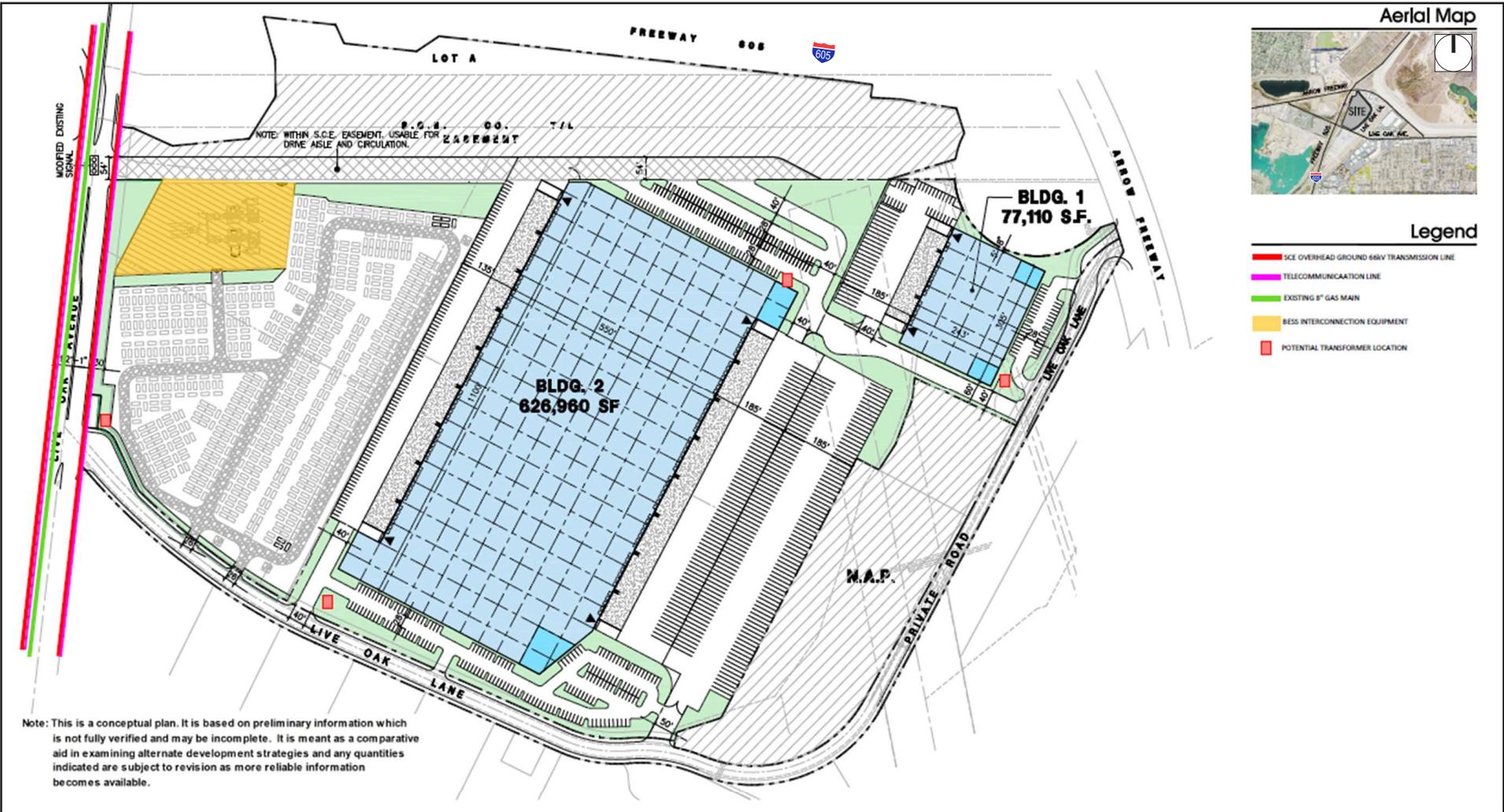


Source: KEARNY, 2023.

## 5. Environmental Analysis UTILITIES AND SERVICE SYSTEMS

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5. Environmental Analysis  
Figure 5.15-4b - Conceptual Dry Utilities Option 2



Note: This is a conceptual plan. It is based on preliminary information which is not fully verified and may be incomplete. It is meant as a comparative aid in examining alternate development strategies and any quantities indicated are subject to revision as more reliable information becomes available.

Source: HPA Architecture 2023.

## 5. Environmental Analysis UTILITIES AND SERVICE SYSTEMS

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## 5. Environmental Analysis UTILITIES AND SERVICE SYSTEM

### 5.15.5.5 CUMULATIVE IMPACTS

Like development pursuant to the Specific Plan, each cumulative project could increase electricity and natural gas demands. The CEC electricity demand forecasts are based on climate zones; economic and demographic growth forecasts from Moody's Analytics, IHS Global Insight, and the California Department of Finance; forecast electricity rates; effects of reasonably foreseeable energy efficiency and energy conservation efforts; anticipated partial electrification of portions of the transportation sector, including increasing adoption of light-duty plug-in electric vehicles; demand response measures, such as electricity rates that increase during high-demand times of day; and effects of climate change (CEC 2016). Natural gas demand forecasts are based on economic outlook, California Public Utilities Commission–mandated energy efficiency standards and programs, renewable electricity goals, and conservation savings linked to Advanced Metering Infrastructure. It is anticipated that electricity and natural gas demands by most other projects would be accounted for in the above-referenced demand forecasts. Future development would also install infrastructure supporting telecommunications services pursuant to the requirements of the Irwindale Municipal Code.

Given the already urbanized character of the city, new conveyance facilities would not significantly alter land use patterns to the extent that construction of new electrical, natural gas, or telecommunications facilities would be warranted. Additionally, other projects would be subject to independent CEQA review, including analysis of impacts to electricity, natural gas, and telecommunication facilities. Implementation of all feasible mitigation measures would be required for any significant impacts identified. Therefore, cumulative impacts would be less than significant, and project impacts would not be cumulatively considerable.

*Significance After Mitigation:* Less than significant cumulative impacts.

### 5.15.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, Impacts 5.15-1 through 5.15-8 would be less than significant.

### 5.15.7 Mitigation Measures

No mitigation measures required.

### 5.15.8 Level of Significance After Mitigation

Impact 5.15-1 through 5.15-8 would be less than significant.

### 5.15.9 References

Bol, Raymond (industrial account manager). 2021, June 8. Email Response. Waste Management Inc.

California Department of Resources Recycling and Recovery (CalRecycle). 2019a. Jurisdiction Disposal and Alternative Daily Cover (ADC) Tons by Facility.  
<https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Destination/DisposalByFacility>.

## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEMS

- . 2019b. SWIS Facility Detail: Simi Valley Landfill & Recycling Center (56-AA-0007). <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/608?siteID=3954>.
- . 2019c. SWIS Facility Detail: El Sobrante Landfill (33-AA-0217). <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2280?siteID=2402>.
- . 2019d. Landfill Tonnage Reports. <https://www2.calrecycle.ca.gov/LandfillTipFees/>.
- . 2019e. Estimated Solid Waste Generation Rates. <https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates>.
- California Department of Water Resources (DWR). June 13, 2017. Water Budget Workbook for New and Rehabilitated Residential Landscapes.
- California Energy Commission (CEC). 2016, December 5. California Energy Demand Updated Forecast, 2017-2027. <https://efiling.energy.ca.gov/getdocument.aspx?tn=214635>.
- . 2023a. California Energy Demand 2021-2035 Baseline Forecast: CED 2021 Baseline Forecast: SCE Mid Demand Case. <https://efiling.energy.ca.gov/GetDocument.aspx?tn=241221>.
- . 2023b California Energy Demand 2021-2035 Baseline Forecast: CED 2021 Baseline Natural Gas Forecast: Mid Demand Case. <https://efiling.energy.ca.gov/GetDocument.aspx?tn=241226>.
- Kingsbury, Jordan (district manager). 2023, April 26. Email Response. Waste Management Inc., Azusa Land Reclamation.
- Lockhart, Linda (environmental protection specialist II). 2023, May 10. Email Response. Waste Management Inc., El Sobrante Landfill.
- Los Angeles County. 2005, October 12. Policies for Managing Available Sewer Capacity and Sewage Discharge in Excess of Design Capacity. <https://pw.lacounty.gov/ldd/lddservices/sewerAreaStudy/docs/Sewer%20Capacity%20Policy%20Memo%2010-12-05.pdf>.
- Los Angeles County Public Works (LACPW). 2023. Estimated Average Daily Sewage Flow for Various Occupancies. <https://pw.lacounty.gov/ldd/lddservices/sewerAreaStudy/docs/Estimated%20Average%20Daily%20Sewage%20Flow%20for%20Various%20Occupancies.pdf>.
- Meeka, Darenn (deputy director). 2021, June 8. Telephone Conversation. County of San Bernardino Solid Waste Management Division.
- Southern California Edison (SCE). 2021. Power Content Label: 2021. <https://www.sce.com/sites/default/files/custom-files/Web%20files/2021%20Power%20Content%20Label.pdf>.
- Valley County Water District. 2021, June. 2020 Urban Water Management Plan. <https://www.vc wd.org/DocumentCenter/View/505/2020-Urban-Water-Management-Plan-PDF>.

## 6. Significant Unavoidable Adverse Impacts

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Pursuant to Section 15126.2(b) of the California Environmental Quality Act (CEQA) Guidelines, this environmental impact report (EIR) considers the significant environmental effects that cannot be avoided if the proposed project is implemented. At the end of Chapter 1, *Executive Summary*, is a table that summarizes the impacts, mitigation measures, and levels of significance before and after mitigation. Mitigation measures would reduce the level of impact, but the following impacts would remain significant, unavoidable, and adverse after mitigation measures are applied.

### 6.1 AIR QUALITY

- **Impact 5.2-1:** Long-term operation emissions generated by the proposed project would produce criteria air pollutants that exceed the South Coast Air Quality Management District's (AQMD) significance thresholds for volatile organic compounds (VOC) and nitric oxide (NO<sub>x</sub>) during operation of Option 1 and NO<sub>x</sub> during operation of Option 2. Mitigation Measures AQ-1, GHG-1, GHG-3, GHG-4, GHG-7, T-1, and T-2, which would require use of paints with a low VOC content of 0 grams per liter (g/L) during construction, electric-powered offroad equipment, electrification of truck/dock bays that serve cold storage facilities, reduction of truck idling, installation of a bus stop, and modification of the public sidewalk to accommodate a Class IV trail, would reduce emissions from VOC and NO<sub>x</sub> below the South Coast AQMD's threshold for NO<sub>x</sub>. However, VOC and NO<sub>x</sub> emissions from Option 1 and NO<sub>x</sub> emissions from Option 2 would continue to exceed their respective South Coast AQMD thresholds. Therefore, the proposed project would be considered inconsistent with the Air Quality Management Plan, and impacts would be potentially significant.
- **Impact 5.2-2:** Operation of Option 1 would exceed the South Coast AQMD's VOC and NO<sub>x</sub> threshold, and operation of Option 2 would cause an exceedance in the South Coast AQMD's NO<sub>x</sub> threshold even with implementation of Mitigation Measures AQ-1, GHG-1, GHG-3, and GHG-7. Therefore, Impact 5.2-2 for operation activities would remain significant and unavoidable on a project-specific and cumulative basis.
- **Cumulative Toxic Air Contaminants:** The proposed project's health risk is considered in combination with cumulative projects, health risk at a maximally exposed sensitive receptor may exceed 10 in a million incremental cancer risk. Mitigation Measures AQ-1, AQ-2, GHG-1, GHG-3, GHG-4, and GHG-7 would help to lower Toxic Air Contaminant (TAC) emissions because these measures would support the transition to zero-emission trucks and zero-emissions offroad equipment. In addition, new rules have been recently adopted to reduce criteria air pollutant and TAC emissions from goods movement, such as the California Air Resource Board's Advanced Clean Trucks, Advanced Clean Fleets, and the Omnibus Regulation. Overall, cancer health risk within the South Coast Air Basin (SoCAB) is decreasing from improvements in truck technology and turnover of older vehicles. However, the project's cumulative effect on health risk in

## 6. Significant Unavoidable Adverse Impacts

the South Coast AQMD region is considered to potentially cumulatively contribute to significant health impacts in the SoCAB. The air pollutant emissions associated with the proposed project would be cumulatively considerable and impacts would remain significant and unavoidable.

### 6.2 GREENHOUSE GAS EMISSIONS

- **Impact 5.6-1:** Development and operation associated with the annual GHG emissions of both options of the proposed project would exceed the South Coast AQMD bright-line threshold of 3,000 metric tons of carbon dioxide equivalent (MTCO<sub>2e</sub>) per year. Implementation of Mitigation Measure GHG-3 would reduce emissions from use of all-electric offroad equipment. However, because of the number of people who may use alternative modes of transportation, the total reductions that the services provided through Mitigation Measures GHG-1, GHG-2, GHG-4, GHG-5, GHG-6, and GHG-7 and other components of Mitigation Measure GHG-3 cannot be quantified. Neither the project applicant nor the lead agency (City of Irwindale) can substantively or materially affect reductions in project mobile-source emissions beyond the regulatory requirements. Emissions under both options for the proposed project would still exceed the South Coast AQMD bright-line threshold, and Impact 5.7-1 would remain significant and unavoidable.

# 7. Alternatives to the Proposed Project

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## 7.1 INTRODUCTION

### 7.1.1 Purpose and Scope

The California Environmental Quality Act (CEQA) requires that an environmental impact report include a discussion of reasonable project alternatives that would “feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives” (CEQA Guidelines § 15126.6[a]). As required by CEQA, this chapter identifies and evaluates potential alternatives to the proposed project.

Section 15126.6 of the CEQA Guidelines explains the foundation and legal requirements for the alternative’s analysis in an EIR. Key provisions are:

- “[T]he discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.” (15126.6[b])
- “The specific alternative of ‘no project’ shall also be evaluated along with its impact.” (15126.6[e][1])
- “The no project analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” (15126.6[e][2])
- “The range of alternatives required in an EIR is governed by a ‘rule of reason’ that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project.” (15126.6[f])
- “Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries..., and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)” (15126.6[f][1]).
- “Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.” (15126.6[f][2][A])

## 7. Alternatives to the Proposed Project

- “An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.” (15126.6[f][3])

For each project alternative, the analysis will:

- Describe the alternative.
- Analyze the impact of the alternative as compared to the proposed project.
- Identify the impacts of the project that would be avoided or lessened by the alternative.
- Assess whether the alternative would meet most of the basic project objectives.
- Evaluate the comparative merits of the alternative and the project.

According to Section 15126.6(d) of the CEQA Guidelines, “[i]f an alternative would cause...significant effects in addition those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.”

### 7.1.2 Project Objectives

As described in Section 3.2, the following objectives have been established for the proposed project and will aid decision makers in their review of the project, the project alternatives, and associated environmental impacts.

1. Create a comprehensive master plan for the re-use of a reclaimed sand and gravel quarry including the development of utility scale battery energy storage system.
2. Provide state-of-the-art buildings that can accommodate various industrial and manufacturing uses, including warehouse distribution, logistics, and fulfillment centers with proximate access to Interstate 605 on- and off-ramps.
3. Ensure that infrastructure plans for water, sewer, and drainage are adequately designed for the Specific Plan Area.
4. Provide a circulation system that meets transportation requirements and minimizes potential adverse impacts on the surrounding area.
5. Provide guidelines and standards for architecture, landscaping, walls, fencing, lighting, and entry treatments that are compatible with the design and architecture of the surrounding uses.

### 7.1.3 Significant Impacts of the Project

As discussed above, a primary consideration in defining project alternatives is their potential to reduce or eliminate significant impacts compared to the proposed project. Chapter 3, *Project Description*, details two potential site plans—three industrial buildings (Option 1) and two industrial buildings with a Battery Energy Storage System (BESS) (Option 2)—and other various development components and improvements. The end use for the project site after reclaiming the property would be one of these two options.

## 7. Alternatives to the Proposed Project

The impact analysis in Chapter 5 of this EIR concludes that implementation of the proposed project would result in the following significant, unavoidable impacts after mitigation measures are applied. If not otherwise noted, the significance conclusions apply to both Option 1 and Option 2.

### Air Quality

**Impact 5.2-1.** Long-term operation emissions generated by the proposed project would produce criteria air pollutants that exceed the South Coast Air Quality Management District's (AQMD) significance thresholds for volatile organic compounds (VOC) and nitric oxides (NO<sub>x</sub>) during operation of Option 1 and NO<sub>x</sub> during operation of Option 2.

**Impact 5.2-2.** Operation of Option 1 would cause an exceedance in the South Coast AQMD's VOC and NO<sub>x</sub> threshold, and operation of Option 2 would cause an exceedance in the South Coast AQMD's NO<sub>x</sub> threshold.

**Cumulative Toxic Air Contaminants:** The proposed project's health risk is considered in combination with cumulative projects and the health risk at a maximally exposed sensitive receptor may exceed 10 in a million incremental cancer risk. The project's cumulative effect on health risk in the South Coast AQMD region is considered to potentially cumulatively contribute to significant health impacts in the SoCAB.

**Impact 5.2-3.** On a project-specific basis, the proposed project would not expose sensitive receptors to substantial pollutant concentrations during construction or operation and Impact 5.2-3 would be less than significant. On a cumulative level, however, because the proposed project's health risk is considered in combination with cumulative projects, health risk at a maximally exposed sensitive receptor may exceed 10 in a million incremental cancer risk. The project's cumulative effect on health risk in the South Coast AQMD region is, therefore, considered to cumulatively contribute to significant health impacts in the South Coast Air Basin.

### Greenhouse Gas

**Impact 5.7-1.** Development and operation associated with the annual GHG emissions of both options of the proposed project would exceed the South Coast AQMD bright-line threshold of 3,000 metric tons of carbon dioxide equivalent (MTCO<sub>2e</sub>) per year and would result in significant, unavoidable greenhouse gas impacts.

## 7.2 ALTERNATIVES CONSIDERED AND REJECTED

### 7.2.1 Alternative Development Area

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR (CEQA Guidelines Section 15126.6[f][2][A]). Key factors in evaluating the feasibility of potential offsite locations for EIR project alternatives include:

- If it is in the same jurisdiction.
- Whether development as proposed would require a General Plan Amendment.

## 7. Alternatives to the Proposed Project

- Whether the project applicant could reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent). (CEQA Guidelines Section 15126.6[f][1])

As shown in Figure 4-3, *City of Irwindale Cumulative Projects within Two Miles of the Proposed Project*, and Figure 4-4, *Cumulative Projects within Two Miles of the Proposed Project in Surrounding Jurisdictions*, and detailed in corresponding Tables 4-1 and 4-2, the project area is characterized by high development activity. Four of the five approved or pending projects within the City of Irwindale are, as with the proposed project, industrial warehousing developments. Limited opportunities for new projects remain in the City, and the applicant does not own or have options on other properties within the City of Irwindale area or surrounding area.

Moreover, the proposed project site's location is key to the applicant's project objectives. Key to their proposal is the proximate access to the Interstate 605 (I-605) and on- and off-ramps. A critical site component for Option 2 that includes the BESS facility is the site's adjacency to an existing substation.

For these reasons, an alternate project site was not evaluated as a feasible project alternative.

### 7.2.2 Alternative Land Use

The following alternative land uses for the project site were reviewed for their potential to reduce or eliminate the significant impacts associated with the project as proposed while attaining most of the project's basic objectives:

- **Retail.** A market analysis was conducted by The Concord Group (TCG) for potential retail and hotel use of the project site (Concord Group 2022). This report is included as Appendix N to this EIR. The analysis was conducted in light of the City embarking on a General Plan update and with an objective to determine the viability of site development in accordance with the site's Regional Commercial designation. TCG arrived at the following high-level conclusions regarding the market potential of the property:
  - Large-scale, anchored format retail (regional mall, big box center, neighborhood center) is neither market nor financially feasible, due to the following factors:
    - Poor retail conditions nationally, characterized by oversupply, declining availability of anchor tenants, department store revenue decline and growth of e-commerce (see Appendix N, Exhibit II-1).
    - Inferior visibility compared to existing stock which favors locations off of I-10 and I-210, with traffic counts that are 35 percent to 50 percent higher than that along the I-605 near the project site (see Appendix N, Exhibit II-2A).
    - The demographic character locally and associated median incomes and home values are inferior to other established retail locations in the greater market area (see Appendix N, Exhibit II-4).
    - Two major malls are located within five-miles of the project site, while nearly all major big box anchors have a presence within a three-mile radius (Appendix N, Exhibit II-5C and II-5D).

## 7. Alternatives to the Proposed Project

- The neighborhood location and market area retail dynamics could support the development of smaller format, convenience retail centers servicing the local workforce and drive-by traffic along I-605.
- The immediate surrounding land uses are problematic for attracting large-scale retail tenants to this location. Large-scale asphalt operators and overhead powerlines are not attractive for potential retail and hotel users.

This alternative was, therefore, rejected for further analysis.

- **Hotel.** Based on The Concord Group report, the location of the project site, adjacent to the I-605, is not a desired location for hotels. The market opportunity of a hotel development targeting leisure or business travel is weak in the current climate of the San Gabriel Valley. Market conditions have not recovered from the COVID-19 downturn as occupancy and average daily rates are still well below 2019 levels. The site is not suited for leisure travel, and the surrounding land uses do not support development for business travel hotels as they are all located along the employment corridors of the I-10 and I-210. The immediate surrounding land uses are problematic for attracting hotel and large-scale retail tenants to this location. Large-scale asphalt operators and overhead powerlines are not attractive for potential retail and hotel users. There is also an oversupply of hotels within a 5-mile radius, with three hotels totaling 389 rooms under construction in Monrovia and Duarte. For these reasons, a hotel use was not evaluated further as a viable project alternative.
- **Office.** An all-office space alternative would not be economically viable. According to a recent report regarding the economic viability of office real estate by CBRE Group, Inc., office vacancy rates continue to rise in the Greater Los Angeles area due to companies adopting hybrid-flexible work from home schedules for their employees, low asking-lease rates, and businesses downsizing. Additionally, the Greater Los Angeles office market has posted a negative net absorption for five quarters straight (-3,272,532 square feet), meaning there is a surplus of office space in the Greater Los Angeles area, which means investing in the development of excess office space would not be economically viable (CBRE 2023). This alternative was, therefore, rejected for further analysis.

### 7.3 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

Based on the information and criteria above, the following alternatives have been determined to represent a reasonable range of alternatives with the potential to feasibly attain most of the basic objectives of the project but may avoid or substantially lessen any of the significant effects of the project. These alternatives are more fully described in Table 7-1, *Alternatives Description and Statistical Comparison*, and analyzed in the following sections.

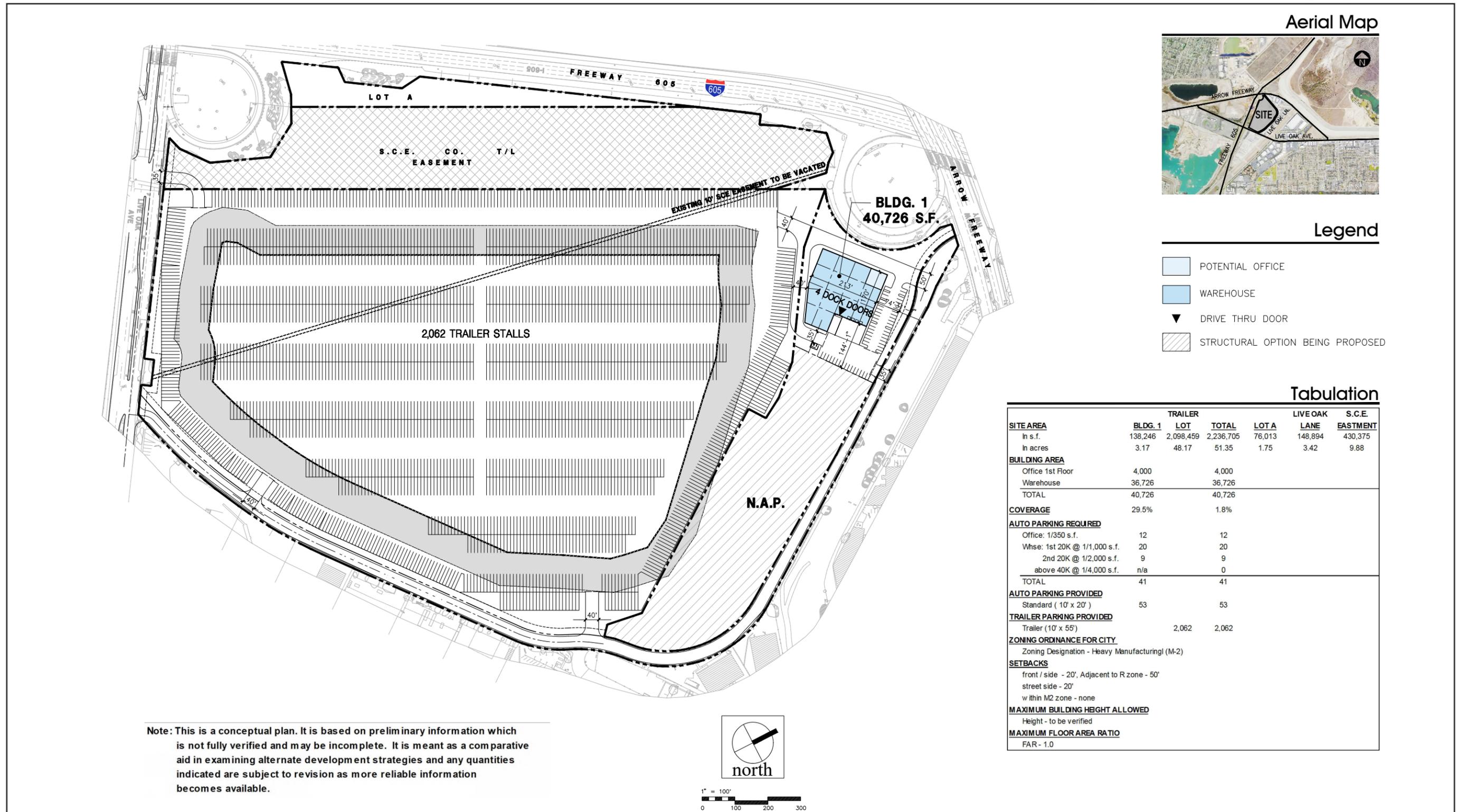
- **No Project/No Development.** As with the proposed project, under this alternative, implementation of the Nu-Way Live Oak Reclamation Operations Plan would be fully implemented. The landfill reclamation is not part of the proposed project. As such the site would be rough graded in accordance with the Operations Plan and any remaining structures would be removed. Existing structures located in the northwest corner of the project site, however, are not within the grading plan approved for the Operations

## 7. Alternatives to the Proposed Project

Plan (see Figure 3-5, *Rough Grading Plan and Remedial Grading Over-Excavation*). Under the No Project/No Development plan, these structures would remain. The balance of the site would remain undeveloped and rough graded.

- **Existing General Plan.** Under this alternative, the site would be developed consistent with the existing land use designation, Regional Commercial (RC). The RC land use designation encourages a mix of commercial, office professional, and light manufacturing uses along a number of high-visibility traffic corridors. Given that commercial retail and office uses have been determined not to be economically viable for this site (see Section 7.2), this alternative has been defined to focus on light manufacturing with very minimal retail square footage. The site is zoned M-2 (Heavy Manufacturing) for which the zoning ordinance describes a variety of over 100 different allowed manufacturing-type uses. The RC designation defines a floor area ratio of 2.0 to 1.0. The current zone does not have a maximum building height. The market analysis for the project site concludes that the site could support the development of smaller format, convenience retail centers serving the local workforce and drive-by traffic along I-605. Specifically, this alternative includes a total of 10,000 square feet to support a fast-food restaurant, gas station, and convenience mart, as described in the TCG report. Since a new Specific Plan use would require a General Plan Amendment, this alternative only includes one option and assumes a Floor Area Ratio (FAR) of 2.0 for the manufacturing use on approximately 49 acres resulting in (approximately 4.3 million square feet [SF] along with the 10,000 SF of retail use.
- **Reduced Intensity Alternative.** This alternative includes the same land uses as the proposed project but assumes that the warehousing square footage is reduced sufficiently to eliminate the significant greenhouse gas emissions impact of the proposed project. It would accommodate up to 116,018 SF of warehousing plus 5,225 SF of office space (approximately 12 percent of the proposed project SF) and could be designed with a BESS use (which is assumed to be the same acreage as the proposed project) as a second option. The warehousing square footage for the BESS option is reduced the same proportion as the Option 1 reduction (12 percent of the warehousing SF for proposed project Option 2).
- **Truck Trailer Storage Alternative.** This alternative was previously considered by the project applicant. A conceptual site plan is shown as Figure 7-1, *Truck Trailer Parking Project Alternative*. The plan included a total of 2,062 tractor trailer parking stalls and a 40,726 SF building accommodating warehousing and office space. This alternative was considered for the entire site, and an Option 2 has not been evaluated.

Figure 7-1 - Truck Trailer Parking Project Alternative



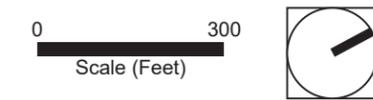
Aerial Map

**Legend**

- POTENTIAL OFFICE
- WAREHOUSE
- DRIVE THRU DOOR
- STRUCTURAL OPTION BEING PROPOSED

**Tabulation**

SITE AREA	TRAILER			LOT A	LIVE OAK LANE	S.C.E. EASTMENT
	BLDG. 1	LOT	TOTAL			
In s.f.	138,246	2,098,459	2,236,705	76,013	148,894	430,375
In acres	3.17	48.17	51.35	1.75	3.42	9.88
<b>BUILDING AREA</b>						
Office 1st Floor	4,000		4,000			
Warehouse	36,726		36,726			
TOTAL	40,726		40,726			
<b>COVERAGE</b>						
	29.5%		1.8%			
<b>AUTO PARKING REQUIRED</b>						
Office: 1/350 s.f.	12		12			
Whse: 1st 20K @ 1/1,000 s.f.	20		20			
2nd 20K @ 1/2,000 s.f.	9		9			
above 40K @ 1/4,000 s.f.	n/a		0			
TOTAL	41		41			
<b>AUTO PARKING PROVIDED</b>						
Standard ( 10' x 20' )	53		53			
<b>TRAILER PARKING PROVIDED</b>						
Trailer (10' x 55')		2,062	2,062			
<b>ZONING ORDINANCE FOR CITY</b>						
Zoning Designation - Heavy ManufacturingI (M-2)						
<b>SETBACKS</b>						
front / side - 20', Adjacent to R zone - 50'						
street side - 20'						
within M2 zone - none						
<b>MAXIMUM BUILDING HEIGHT ALLOWED</b>						
Height - to be verified						
<b>MAXIMUM FLOOR AREA RATIO</b>						
FAR - 1.0						



Source: Kearny, July 27, 2021.

## 7. Alternatives to the Proposed Project

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7. Alternatives to the Proposed Project

**Table 7-1 Alternatives Description and Statistical Comparison**

Alternative Name		Land Use	Acres	Permitted Building/Structure Use	Square Footage	Environmental Reason to Review
Proposed Project	<b>Option 1</b>	Industrial/Business Park	66.64 gross* (52.65 net)**	General light industrial, manufacturing, warehouse/distribution, e-commerce fulfillment center	954,796	Proposed Project
				Office	43,000	
	<b>Total</b>		<b>52.65 net**</b>		<b>997,796</b>	
	<b>Option 2</b>	Industrial/Business Park	36.71 net**	General light industrial, manufacturing, warehouse/distribution, e-commerce fulfillment center	668,070	
		Office	Included in Industrial/Business Park	Office	36,000	
		Battery Energy Storage System (BESS)	15.94	BESS	Battery/inverter voltage area is approximately 353,000 SF (not included in total below)	
	<b>Total</b>		<b>52.65 net**</b>		<b>704,070</b>	
No Project/No Development	<b>Only One Option</b>	Vacant/Undeveloped	66.64 gross*	NA	0	Required by CEQA
Existing General Plan	<b>Only One Option</b>	Industrial/Business Park - Light Manufacturing Uses (as listed in the C-M, M-1, and M-2 zoning districts)	49.65 net**	Light manufacturing – including bottling plants, box factories, drugs, manufacture and wholesale, dry goods, fabrication plants, transfer, moving and storage of furniture and household goods	4.3 million	Avoid General Plan Amendment. Potential to reduce significant impacts related to: • Air Quality • Greenhouse Gas Emissions
		Convenience Retail:	3.00	Examples: Fast food	10,000	

## 7. Alternatives to the Proposed Project

**Table 7-1 Alternatives Description and Statistical Comparison**

Alternative Name	Land Use	Acres	Permitted Building/Structure Use	Square Footage	Environmental Reason to Review	
	Fast food, Gas station, Convenience mart		Gas station, Convenience mart			
	<b>Total</b>	<b>52.65net**</b>		<b>4.3 M</b>		
<b>Reduced Intensity Alternative</b>	<b>Option 1</b>	Industrial/Business Park	66.64 gross* (52.65 net**)	General light industrial, manufacturing, warehouse/distribution, e-commerce fulfillment center	Potential to reduce significant impacts related to: • Air Quality • Greenhouse Gas Emissions	
				Office		5,225
		<b>Total</b>	<b>52.65net**</b>			<b>121,243</b>
	<b>Option 2</b>	Industrial/Business Park	36.71 net**	General light industrial, manufacturing, warehouse/distribution, e-commerce fulfillment center		105,266
		Office	Included in Industrial/Business Park	Office		5,672
		Battery Energy Storage System (BESS)	15.94	BESS		Battery/inverter voltage area is approximately 353,000 SF (not included in total below)
		<b>Total</b>	<b>52.65net**</b>			<b>110,939</b>

7. Alternatives to the Proposed Project

**Table 7-1 Alternatives Description and Statistical Comparison**

Alternative Name		Land Use	Acres	Permitted Building/Structure Use	Square Footage	Environmental Reason to Review
Truck Trailer Storage Alternative	Only One Option	Truck Trailer Storage	52.89 net**	2,062 truck trailer parking stalls	NA	Previous site concept by applicant. Potential to reduce significant impacts related to: • Air Quality • Greenhouse Gas Emissions
				Office/Warehouse Building	40,726	

\* Gross acres include rights-of-way and the Southern California Edison easement.

\*\* Net acres exclude rights-of-way and Southern California Edison easement.

## 7. Alternatives to the Proposed Project

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## 7. Alternatives to the Proposed Project

An EIR must identify an “environmentally superior” alternative, and where the No Project Alternative is identified as environmentally superior, the EIR is required to identify an environmentally superior alternative from among the others evaluated. Each alternative’s environmental impacts are compared to the proposed project and determined to be environmentally superior, neutral, or inferior. The impacts found significant and unavoidable have been used in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project. Only the impacts involving air quality and greenhouse gases were found to be significant and unavoidable. Section 7.7 identifies the Environmentally Superior Alternative.

The preferred land use alternative (proposed project) is analyzed in detail in Chapter 5 of this DEIR.

### 7.3.1 Alternatives Comparison

Table 7-2 shows projected daily morning and evening peak hour trips for each alternative. Trip generation is based upon rates obtained from the Institute of Transportation Engineers’ (ITE) *Trip Generation Manual*, 11th edition.

Table 7-3 shows the projected daily vehicle miles traveled (VMT) for each alternative. Auto and truck VMT were estimated as 20 miles per trip for project-site generated trips. A fast food pass-by rate of 55 percent was assumed for peak hour for the VMT calculation. <sup>1</sup>

**Table 7-2 Trip Generation Comparison**

	Daily	Morning Peak Hour	Evening Peak Hour
<b>Proposed Project</b>			
Option 1	2,633	282	237
Option 2	1,914	176	184
<b>No Project/No Development</b>	0	0	0
<b>Existing General Plan</b>	17,293	2,971	2,838
<b>Reduced Intensity Alternative</b>			
Option 1	609	97	90
Option 2	571	90	84
<b>Truck Trailer Parking</b>	1,953	171	180

Source: Iteris April 2024.ad

<sup>1</sup> Pass-by traffic is diverted trips already traveling on the road vs. all the trips going in and out of the driveways.

## 7. Alternatives to the Proposed Project

**Table 7-3 VMT Comparison**

	VMT Total	Passenger Vehicle VMT	Truck VMT	Difference %
<b>Proposed Project</b>				
Option 1	59,874	38,714	21,160	NA
Option 2	43,274	28,354	14,920	NA
No Project/No Development	-	-	-	-
Existing General Plan	380,334	337,334	43,000	635%
<b>Reduced Intensity Alternative</b>				
Option 1	1,918	10,598	1,320	20%
Option 2	11,154	9,954	1,200	19%
Truck Trailer Parking	57,622	17,462	40,160	96%

Source: Iteris 2024.

Notes: Auto VMT= 20.8/emp without mitigation and 18.4 with mitigation; Truck VMT = 40 VMT/emp with or without MM

### 7.3.2 Environmental Impact Comparison

Table 7-4, *Project Alternatives: Environmental Impact Comparison*, assesses the relative impact for each project alternative in comparison to the proposed project. All of the environmental categories evaluated for the proposed project in this DEIR are compared. A determination is provided whether the impact is “less than” (LT), “greater than” (GT), or “similar to” (S) the respective environmental impact for the proposed project.

7. Alternatives to the Proposed Project

**Table 7-4 Project Alternatives: Environmental Impact Comparison**

Impact	No Project	Existing General Plan	Reduced Intensity Alternative	Tractor Trailer Storage Alternative
<b>Aesthetics</b>	<p>Under the No Project alternative, no new development would occur on the project site. As with the proposed project, under this alternative, implementation of the Nu-Way Live Oak Reclamation Operations Plan would be fully implemented. The landfill reclamation is not part of the proposed project. As such the site would be rough graded in accordance with the Operations Plan and any remaining structures within the Operations Plan boundary would be removed. The site would then remain undeveloped. Several structures in the northwest corner of the project site are outside the Operations Plan approved grading plan boundary and could remain</p> <p>The aesthetic improvements included under the proposed project's Specific Plan including implementing a master landscape plan and comprehensive Design Guidelines, would not occur (see Figure 5.1-1, <i>Conceptual Specific Plan Images</i>). In comparison to the proposed project, the site would remain vacant, and unimproved, and potentially not maintained. Uncontrolled vegetation may result in unsightly weeds, and chain-link fences would likely remain as barriers to site access. The No Project alternative, therefore, would have a greater impact on aesthetics compared to the proposed project.</p> <p style="text-align: center;"><b>GT</b></p>	<p>Development of the project site in accordance with the existing General Plan designation of Regional Commercial (RC) would allow very diverse land uses, including commercial, office, and light manufacturing. It would have no limit on building heights in comparison to the proposed projects' 60 foot maximum and would allow a floor area ratio of 2.0. For comparison purposes, this alternative assumes 4.3 million SF of light manufacturing uses and 10,000 SF of retail use.</p> <p>This alternative would not require a Specific Plan and the market viability of manufacturing uses has not been established for this site. Development of the site could be fragmented over time and not subject to a cohesive plan, or funding for site-wide improvements (landscaping, road improvements, lighting). Because of the tiered zoning, including CM and M1), over 116 different uses are permitted under the site's existing M-2 zoning. For analysis, this alternative, however, has been defined with light manufacturing uses. Property maintenance with potential numerous lease-holders/tenants could be a concern.</p> <p>Development would be reduced in height but cover a larger portion of the site. Scenic views would not be obstructed, but it has also been determined that they would not be obstructed by the proposed projects' higher buildings. Therefore, this alternative would result in greater aesthetic impacts than the proposed project.</p> <p style="text-align: center;"><b>GT</b></p>	<p>The Reduced Intensity Alternative would accommodate up to 121,243 building square feet including office space (12 percent of Option 1 of the proposed project SF) and could be designed with a BESS use (which is assumed to be the same acreage as the proposed project). Since limited acreage would be required for the warehouse use, it is assumed that the site plan including a BESS use would be most logical. Assuming an approximate 16-acre BESS use (as in the proposed project, Option 2), approximately 37 acres would remain for the 110,939 SF warehousing use. The warehousing use would require 5 acres or less, and therefore, approximately 32 acres would remain vacant.</p> <p>It is unlikely that the improvements included in the proposed project's Specific Plan could be amortized for the limited warehousing use under this alternative. This would include both project site improvements, and public improvements (area roadway and infrastructure tie-in improvements). Moreover, this alternative would have approximately 32 additional acres requiring maintenance, or landscaping.</p> <p>Aesthetic impacts under this alternative, therefore, would be greater than the proposed project's aesthetic impacts.</p> <p style="text-align: center;"><b>GT</b></p>	<p>The Truck Trailer Alternative would develop the site with 2,062 tractor trailer parking stalls and 40,726 square feet of warehousing/office space. When compared to the proposed project this alternative would not obstruct views of the scenic resources (San Gabriel Mountains and Puente Hills) to the extent of the proposed project since most of the project site would be developed with a parking lot for tractor trailers (approximately 14 feet tall). As shown on Figure 7-1, <i>Truck Trailer Parking Project Alternative</i>, almost the entire site would be used for trailer parking. A Specific Plan would not be proposed for this use, and aesthetic improvements, particularly landscaping, would likely be minimal. While development would be subject to standards of IMC Chapter 17.52, Light Manufacturing Zone, these standards do not require the screening of the uses on the project site from view of surrounding areas like the proposed Specific Plan. Therefore, impacts to aesthetics would be greater under this alternative.</p> <p style="text-align: center;"><b>GT</b></p>
<b>Agriculture and Forestry</b>	<p>The Plan Area does not contain important farmland designated by the Department of Conservation, nor does the site contain existing agricultural uses. Additionally, it is not zoned for forest uses, nor does it contain forest land. Both the proposed project and No Project Alternative would have no impact on agricultural and forestry resources.</p> <p style="text-align: center;"><b>S</b></p>	<p>The Plan Area does not contain important farmland designated by the Department of Conservation, nor does the site contain existing agricultural uses. Additionally, it is not zoned for forest uses, nor does it contain forest land. Therefore, impacts to agricultural and forestry resources are the same as the proposed project under this alternative.</p> <p style="text-align: center;"><b>S</b></p>	<p>The Plan Area does not contain important farmland designated by the Department of Conservation, nor does the site contain existing agricultural uses. Additionally, it is not zoned for forest uses, nor does it contain forest land. Both the proposed project and Reduced Intensity Alternative would have no impact on agricultural and forestry resources.</p> <p style="text-align: center;"><b>S</b></p>	<p>The Plan Area does not contain important farmland designated by the Department of Conservation, nor does the site contain existing agricultural uses. Additionally, it is not zoned for forest uses, nor does it contain forest land. Therefore, impacts to agricultural and forestry resources are the same as the proposed project under this alternative.</p> <p style="text-align: center;"><b>S</b></p>
<b>Air Quality</b>	<p>As with the proposed project, site reclamation and grading would be completed pursuant to the approved Nu-Way Live Oak Reclamation Operations Plan (Operations Plan). Under the No Project Alternative, no new site development would occur. The project site would continue to exist as a mostly undeveloped land and would not generate any operational criteria air pollutant emissions. Impacts would be less than significant.</p>	<p>The Existing General Plan Alternative would develop within the same footprint as the proposed project and could include a myriad of different light manufacturing uses up to 4.3 million SF in addition to 10,000 SF of retail use. This alternative would result in a more intensive use of the project site than either of the proposed options under the proposed project. Because this alternative would result in a higher building square footage under both Option 1 and Option 2, the criteria air pollutant emissions generated under this alternative would be higher as well. Therefore, this alternative would have a greater impact on air quality and impacts would remain significant and unavoidable.</p>	<p>The Reduced Intensity Alternative would result in the development of 121,243 square feet of building space under Option 1 and 110,939 square feet of building space under Option 2. This alternative would result in smaller-scale development on the project site for Option 1 and Option 2 and would also reduce Option 1 trips from 2,633 trips per day to 609 trips and Option 2 trip from 1,914 trips per day to 571 trips per day, for a reduction by 77 percent and 70 percent, respectively. Furthermore, daily VMT would be reduced from 59,874 total miles travelled per day to 11,918 miles under Option 1 and from 43,274 miles per day to 11,154 miles per day under Option 2. Thus, criteria air pollutant emissions during construction and operation would be reduced to a level below the South Coast AQMD thresholds for all criteria pollutants. Therefore, impacts under this alternative would be less than the proposed project, and development under this alternative would result in a less than significant impact overall.</p>	<p>The Truck Trailer Storage Alternative would develop most of the site with a parking lot. While this type of development would not require additional excavation, it would still likely require some ground disturbance, including additional grading beyond the scope of the Operations Plan. The construction of the offsite utility improvements would also be necessary to serve the 40,276 SF warehousing/office building. While there would be an increase in criteria air pollutant emissions during ground disturbing activities to accommodate the trailer storage, this alternative would result in a less intensive use of the project site than either of the proposed options, as there would be less development on the project site overall. With this reduction in building area, this alternative would generate less truck idling than a functional warehouse and would not include any offsite equipment associated with warehousing, such as yard trucks or forklifts. Furthermore, this alternative would reduce vehicle trips to the project site by 26 percent compared to Option 1. While this alternative would have more vehicle trips to the project site by two percent as compared to Option 2 trips, overall criteria air pollutant emissions would be reduced as this alternative would result in a smaller building area. As this alternative would result in a smaller building area than the Reduced Intensity Alternative, which has been calculated to be less than significant, impacts under this alternative would be less than the proposed project, and development under this alternative would result in a less than significant impact overall.</p>

## 7. Alternatives to the Proposed Project

**Table 7-4 Project Alternatives: Environmental Impact Comparison**

Impact	No Project	Existing General Plan	Reduced Intensity Alternative	Tractor Trailer Storage Alternative
	LT	GT	LT	LT
<b>Biological Resources</b>	<p>Under the No Project Alternative, no new site development would occur. As with the proposed project, site reclamation and grading would be completed pursuant to the approved Nu-Way Live Oak Reclamation Operations Plan (Operations Plan). No suitable habitat, riparian areas/wetlands, or migratory corridors would exist on the vacant project site after completion of the reclamation activities. Therefore, impacts under this alternative would be similar to the proposed project.</p> <p style="text-align: center;"><b>S</b></p>	<p>The Existing General Plan Alternative would develop within the same footprint as the proposed project and would result in similar impacts to biological resources. Neither the proposed project nor this alternative would impact sensitive species and their habitat, riparian/wetland resources, and migratory corridors due to the previously disturbed and graded conditions of the project site that serve as the baseline for impact analysis in this EIR. Biological Resource Impacts under this alternative, therefore, would be the same as the proposed project.</p> <p style="text-align: center;"><b>S</b></p>	<p>The Reduced Intensity Alternative would substantially reduce the building square footage developed at the project site. Even with development of the BESS option, approximately 32 acres would remain undeveloped. It is unknown if/how this additional acreage would be maintained and whether new vegetation may grow on the site over time. Since no sensitive species, habitat, riparian/wetland resources, or migratory corridors currently exist on the project site, however, as with the proposed project, impacts to existing resources would not occur. Biological Resource Impacts under this alternative would be similar to the proposed project.</p> <p style="text-align: center;"><b>S</b></p>	<p>The Truck Trailer Storage Alternative would develop within the same footprint as the proposed project and would result in similar impacts to biological resources. Neither the proposed project nor this alternative would impact sensitive species and their habitat, riparian/wetland resources, and migratory corridors due to the previously disturbed and graded conditions of the project site. Biological Resource impacts under this alternative, therefore, would be the same as the proposed project.</p> <p style="text-align: center;"><b>S</b></p>
<b>Cultural Resources</b>	<p>Under the No Project Alternative, no development or construction activities would occur at the project site. As with the proposed project, two previously recorded potential cultural resources identified within the SCE easement along the western border of the site would not be disturbed. These resources were not determined to be significant. As with the proposed project, implementation of the Nu-Way Landfill Operations Plan would be completed and would disturb most of the site. This alternative would eliminate any ground disturbance beyond the reclamation activities that would occur under the proposed project. Such disturbance under the proposed project includes offsite utility and road improvements that could potentially uncover buried cultural resources. The potential impact of offsite buried resources under the proposed project would be reduced to less than significant with Mitigation Measures CUL-1 and CUL-2. This alternative would avoid these additional ground-disturbing activities and would not require the implementation of Mitigation Measures. Potential archaeological impacts under this alternative would be less than the proposed project.</p> <p style="text-align: center;"><b>LT</b></p>	<p>The Existing General Plan Alternative would develop the project site with 4.3 million SF of light manufacturing uses and 10,000 SF of retail use. This development would occur within the same project footprint as the proposed project and would likely require a similar or increased scale of offsite utility improvements that would also occur in previously disturbed environments (surrounding streets). As with the proposed project, it is anticipated that this alternative would require additional excavation and grading of the project site beyond the ground disturbance completed under the Operations Plan. This alternative would also require the implementation of Mitigation Measures CUL-1 and CUL-2. Therefore, impacts to cultural resources under this alternative would be similar to the proposed project.</p> <p style="text-align: center;"><b>S</b></p>	<p>Under the Reduced Intensity Alternative, warehousing development would be limited to 121,243 SF (12 percent of Option 1 of the proposed project SF). This alternative could also accommodate a BESS use (which is assumed to be the same acreage as the proposed project Option 2). However, the construction of offsite utility improvements to serve the uses under this alternative would still be required and be expected to result in similar impacts as the proposed project. Since the development footprint and ground disturbing would be reduced in comparison to the proposed project, potential impacts to cultural resources may also be reduced. Implementation of the archaeological resources mitigation would still be required to reduce impacts to less than significant.</p> <p style="text-align: center;"><b>LT</b></p>	<p>The Truck Trailer Storage Alternative would develop most of the site with a parking lot. Minimal grading beyond the Operations Plan's rough grading would be anticipated. The construction of the offsite utility improvements would be required to serve the 40,276 SF warehousing/office building. Therefore, this alternative can be assumed to result in similar impacts archaeological resources, requiring the implementation of Mitigation Measures CUL-1 and CUL-2.</p> <p style="text-align: center;"><b>S</b></p>
<b>Energy</b>	<p>Under the No Project Alternative, no development would occur at the project site. There would be no operating land uses at the site and there would be no energy consumption beyond baseline conditions (completion of the Operations Plan to remediate the Nu-Way Landfill). Impacts to energy would be reduced in comparison to the proposed project. This alternative would not include a potential BESS use, which would result in area-wide benefits if implemented as Option 2 under the proposed project. As with the proposed project, potential energy impacts would be less than significant.</p> <p style="text-align: center;"><b>LT</b></p>	<p>The Existing General Plan Alternative would result in a more intensive use of the project site than either of the proposed options under the proposed project. The light manufacturing uses under this alternative may also be more energy intensive than the warehousing use under the proposed project. Moreover, this alternative would not allow the potential for a BESS use as included in Option 2 of the proposed project. The BESS use would have a beneficial, region-wide energy benefit. Transportation-related energy use under this alternative may or may not be reduced in comparison to the warehousing use. Overall, it is anticipated that this alternative would result in greater energy impacts than the proposed project. Impacts would remain less than significant.</p> <p style="text-align: center;"><b>GT</b></p>	<p>The Reduced Intensity Alternative would reduce development at the site in comparison to the proposed project. Construction and operational energy impacts would be reduced. Moreover, this alternative would also accommodate development of a BESS option, which would be a region-wide energy benefit. Therefore, impacts under this alternative would be less than the proposed project.</p> <p style="text-align: center;"><b>LT</b></p>	<p>The Tractor Trailer Storage Alternative would develop the site with a parking lot and a reduced amount of warehousing/office space when compared to the proposed project. The development of a parking lot and reduced building square footage would result in less energy consumption during construction and onsite operations. Also, as shown in Tables 7-2, <i>Trip Generation Comparison</i>, and 7-3, <i>VMT Comparison</i>, this alternative would result in fewer vehicle trips and VMT than the proposed project, resulting in reduced transportation fuel consumption. Energy impacts related to this alternative, therefore, would be reduced in comparison to the proposed project.</p> <p style="text-align: center;"><b>LT</b></p>
<b>Geology and Soils</b>	<p>The No Project Alternative would result in no development at the project site. This alternative would not involve any grading or excavation (beyond that of the adopted Operations Plans) that could cause unstable subsurface geologic conditions or erosion impacts. This alternative would not introduce new visitors to the project site that could be exposed to</p>	<p>Development under the Existing General Plan would result in more intensive buildout of the project site, resulting in a higher number of employees working at the project site under operation when compared to the proposed project. This would increase the number of people exposed to seismic ground shaking or other geologic hazards.</p>	<p>Development pursuant to the Reduced Intensity Alternative can be assumed to cover a smaller development area when compared to the proposed project. This alternative would likely result in a large portion of the site remaining vacant. Without approved geologic and drainage improvements, the undeveloped portion of the site might result in erosion.</p>	<p>Under the Tractor Trailer Alternative, development would occur within the same footprint as the proposed project resulting in similar impacts with respect to unstable subsurface geologic conditions, erosion, and paleontological resources as the proposed project. However, due to the primary use of the site as a parking lot, this alternative would result in a</p>

7. Alternatives to the Proposed Project

**Table 7-4 Project Alternatives: Environmental Impact Comparison**

Impact	No Project	Existing General Plan	Reduced Intensity Alternative	Tractor Trailer Storage Alternative
	<p>seismic ground shaking or other geologic hazards. Therefore, geologic and soils impacts would be reduced relative to the proposed project. Furthermore, under this alternative there is no potential to encounter paleontological resources during grading activities. Since no earth-moving activities would occur, there would be no potential to damage paleontological resources, and impacts would be reduced compared to the proposed project.</p> <p style="text-align: center;"><b>LT</b></p>	<p>Impacts with respect to unstable subsurface geologic conditions and erosion would be similar to the proposed project since development under this alternative would also be required to prepare a geotechnical evaluation to assess and mitigate potential impacts. Impacts to paleontological resources would also be similar because ground-disturbing activities would occur within the same footprint as the proposed project. Overall, impacts would be slightly increased under this alternative due to the exposure of additional people to seismic ground shaking or other geologic hazards.</p> <p style="text-align: center;"><b>GT</b></p>	<p>The erosion impacts the potential of encountering paleontological resources during grading activities would be reduced in comparison to the proposed project. This alternative would result in a reduced number of employees at the project site. Therefore, this alternative would reduce exposure of people to seismic ground shaking or other geologic hazards. Overall, geologic impacts would be considered different, but similar in terms of significance, relative to the proposed project.</p> <p style="text-align: center;"><b>S</b></p>	<p>reduced number of people exposed to seismic hazards and unstable geologic conditions. Therefore, this alternative would reduce impacts with respect to geologic hazards when compared to the proposed project.</p> <p style="text-align: center;"><b>LT</b></p>
<p><b>Greenhouse Gas Emissions</b></p>	<p>As with the proposed project, site reclamation and grading would be completed pursuant to the approved Nu-Way Live Oak Reclamation Operations Plan (Operations Plan). Under the No Project Alternative, no new site development would occur. The project site would continue to exist as a mostly undeveloped land and would not generate any operational GHG emissions. Impacts would be less than significant.</p> <p style="text-align: center;"><b>LT</b></p>	<p>The Existing General Plan Alternative would develop within the same footprint as the proposed project and would include a myriad of different light manufacturing uses. It would result in a more intensive use of the project site than either of the proposed options under the proposed project. As this alternative would result in a higher building square footage under both Option 1 and Option 2, GHG emissions generated under this alternative would be higher as well. Therefore, this alternative would have a greater impact on air quality and impacts would remain significant and unavoidable.</p> <p style="text-align: center;"><b>LT</b></p>	<p>The Reduced Intensity Alternative was defined by the maximum warehousing square footage that could be accommodated onsite and result in a less than significant GHG impact. As defined, this alternative would develop 121,243 square feet of building space under Option 1 and 110,939 square feet of building space under Option 2. This alternative would result in smaller scale development on the project site for Option 1 and Option 2 and would also reduce Option 1 trips from 2,633 trips per day to 609 trips and Option 2 trip from 1,914 trips per day to 571 trips per day, for a reduction by 77 percent and 70 percent, respectively. Furthermore, daily VMT would be reduced from 59,874 total miles travelled per day to 11,918 miles under Option 1 and 43,274 miles per day to 11,154 miles per day under Option 2. Thus, GHG emissions during construction and operation would be reduced to a level below the South Coast AQMD brightline threshold of 3,000 MTCO<sub>2e</sub>/year. Furthermore, under Option 2, GHG emissions would be further reduced with operation of the BESS. Therefore, impacts under this alternative would be less than the proposed project and development under this alternative would result in a less than significant impact overall.</p> <p style="text-align: center;"><b>LT</b></p>	<p>The Truck Trailer Storage Alternative would develop most of the site with a parking lot. While this type of development would not require additional excavation, it would still likely require some ground disturbance, including additional grading beyond the scope of the Operations Plan. The construction of the offsite utility improvements would also be necessary to serve the 40,276 SF warehousing/office building. While there would be an increase in GHG emissions during ground-disturbing activities to accommodate the trailer storage, this alternative would result in a less intensive use of the project site than either of the proposed options because there would be less development on the project site overall. With this reduction in building area, this alternative would generate less truck idling than a functional warehouse and would not include any offsite equipment associated with warehousing, such as yard trucks or forklifts. Furthermore, this alternative would reduce vehicle trips to the project site by 26 percent compared to Option 1. While this alternative would have more vehicle trips to the project site by two percent as compared to Option 2 trips, overall GHG emissions would be reduced as this alternative would result in a smaller building area. As this alternative would result in a smaller building area than the Reduced Intensity Alternative, which has been calculated to be less than significant, impacts under this alternative would be less than the proposed project, and development under this alternative would result in a less than significant impact overall.</p> <p style="text-align: center;"><b>LT</b></p>
<p><b>Hazards and Hazardous Materials</b></p>	<p>The No Project alternative would leave the site in its reclaimed condition upon implementation of the Nu-Way Landfill Operations Plan. The site would remain vacant and no new land uses would be introduced. The potential hazards, including hazardous construction materials, and operational impacts (such as the BESS potential hazards of lithium batteries if not properly managed) would not be introduced. There would be no potential for the project site to interfere with an emergency response or evacuation plan. As with the proposed project, the No Project alternative would not result in a wildland fire impact. Potential hazard impacts would be reduced in comparison to the proposed project.</p> <p style="text-align: center;"><b>LT</b></p>	<p>Development of the Existing General Plan alternative would be expected to result in a myriad of light manufacturing uses. Many of these uses could introduce the use, and transport of, hazardous materials. The potential for hazardous materials would be greater than the proposed warehousing use. This alternative, however, would not introduce any potential hazard that is related to the BESS use under proposed project, Option 2. It would have a slightly greater potential to impact Emergency Responses or an Evacuation Plan since onsite development would be more intensive, and may not be subject to an overall site management plan that would be part of the proposed project's structure under the Specific Plan. Overall, potential hazards and hazardous materials under this alternative would be greater than the proposed project.</p> <p style="text-align: center;"><b>GT</b></p>	<p>The substantial reduction in building square footage under the Reduced Intensity Alternative would result in a reduction in the potential hazardous materials onsite, including for construction and operation. The less intense use and related traffic reduction would also reduce the potential to interfere with an emergency plan or emergency evacuation. This alternative includes an option for the BESS use, so the potential hazards associated with lithium batteries under the proposed project would remain. Overall, hazards and hazardous materials impacts would be reduced in comparison to the proposed project. As with the proposed project, compliance with regulatory requirements would result in less than significant hazard impacts.</p> <p style="text-align: center;"><b>LT</b></p>	<p>The Truck Trailer Storage alternative would introduce fewer hazardous materials to the project site both for construction and for long-term operation. Daily vehicle trips would be reduced from 2,104 for the proposed project (Option 1) or 1,541 (Option 2) to an estimated 949 for the truck trailer parking alternative. This alternative would not include a BESS option, and therefore, the potential of hazard of lithium batteries would be eliminated in comparison to the proposed project.</p> <p style="text-align: center;"><b>LT</b></p>

## 7. Alternatives to the Proposed Project

**Table 7-4 Project Alternatives: Environmental Impact Comparison**

Impact	No Project	Existing General Plan	Reduced Intensity Alternative	Tractor Trailer Storage Alternative
<b>Hydrology and Water Quality</b>	<p>Baseline water quality conditions, groundwater supplies, drainage patterns, and runoff amounts would not change under the No Project alternative. This alternative would not introduce new sources of water pollutants to the project area. However, this alternative would not include improvements associated with new low-impact development, source control, site design, and treatment control best management practices (BMPs) to minimize runoff and water pollution. These BMPs are required measures that would occur under the proposed project and have a beneficial impact on stormwater quality. Overall, hydrology and water quality impacts would be slightly greater under this alternative but, as with the proposed project, would be less than significant.</p> <p style="text-align: center;"><b>GT</b></p>	<p>As with the proposed project, this alternative would comply with the NPDES, which regulates discharges into waters of the United States and mandates MS4 permits (regulating municipal storm sewer systems) and Storm Water Pollution Prevention Plans (SWPPPs) requiring implementation of BMPs for potential surface water and water quality impacts related to project construction. Hydrology impacts, therefore, would be similar to the proposed project.</p> <p style="text-align: center;"><b>S</b></p>	<p>The Reduced Intensity alternative is a reduced version of the proposed project. As with the proposed project, this alternative would comply with the NPDES, which regulates discharges into waters of the United States and mandates MS4 permits (regulating municipal storm sewer systems) and Storm Water Pollution Prevention Plans (SWPPPs) requiring implementation of BMPs for potential surface water and water quality impacts related to project construction. Hydrology impacts, therefore, would be similar to the proposed project.</p> <p style="text-align: center;"><b>S</b></p>	<p>This alternative would introduce truck trailer storage and a substantially reduced warehousing use in comparison to the proposed project. As with the proposed project, this alternative would comply with the NPDES, which regulates discharges into waters of the United States and mandates MS4 permits (regulating municipal storm sewer systems) and Storm Water Pollution Prevention Plans (SWPPPs) requiring implementation of BMPs for potential surface water and water quality impacts related to project construction. Hydrology impacts, therefore, would be similar to the proposed project.</p> <p style="text-align: center;"><b>S</b></p>
<b>Land Use and Planning</b>	<p>The No Project alternative would leave the site in its reclaimed condition upon implementation of the Nu-Way Landfill Operations Plan. The site would remain vacant and no new land uses would be introduced. It would not divide an established community.</p> <p>This alternative would not require a General Plan Amendment, but it would not achieve many of the General Plan's goals. It would not promote economic development—it would not provide jobs or create revenue. It would not promote property maintenance or infrastructure improvements. In comparison to the proposed project's BESS option, it would not promote energy conservation.</p> <p>Overall, this impact would increase Land Use and Planning impacts in comparison to the proposed project. Impacts would remain less than significant.</p> <p style="text-align: center;"><b>LT</b></p>	<p>This alternative was defined to be consistent with the Existing General Plan. It would not require a General Plan Amendment for light manufacturing and retail land uses. The market viability for this alternative, however, has not been demonstrated, and this alternative may not successfully achieve many of the General Plan's goals. It would not divide an established community and would be consistent with other applicable plans and site zoning.</p> <p>Since it would be consistent with the General Plan, this alternative is considered to result in reduced impacts for Land Use and Planning in comparison to the proposed project.</p> <p style="text-align: center;"><b>LT</b></p>	<p>As with the proposed project, the Reduced Intensity alternative would require a General Plan Amendment to allow both the warehousing use and the optional BESS. Since the warehousing square footage is so significantly reduced under this alternative (to achieve a less than significant GHG impact) and the market viability of manufacturing uses has not been established for this alternative, it is unlikely that development impact fees, connection fees and other funding mechanisms would be sufficient to fund the site and public improvements associated with the proposed project. Similarly, it would be more difficult for this alternative to achieve many of the goals of the General Plan. It may not be economically viable and would create fewer jobs and revenue. It may be difficult to properly maintain the large portion of the site that would not be developed.</p> <p>Overall, this project would result in greater Land Use and Planning impacts. Like the proposed project, however, with a General Plan Amendment, it is anticipated that these impacts would be less than significant.</p> <p style="text-align: center;"><b>GT</b></p>	<p>As with the proposed project, the Tractor Trailer Storage alternative would require a General Plan Amendment to allow the proposed use. It would be less effective in achieving many of the General Plan's goals, including Community Development Element goals. It would generate fewer jobs and less revenue than the proposed project. It would not include a Specific Plan and therefore, not include comprehensive design standards and related amenities (landscaping, entry monuments, etc.). This alternative would result in greater Land Use and Planning impacts than the proposed project. These impacts, however, would be less than significant.</p> <p style="text-align: center;"><b>GT</b></p>
<b>Mineral Resources</b>	<p>Past mining operations depleted mineral resources at the project site. The No Project alternative would leave the site in its reclaimed condition upon implementation of the Nu-Way Landfill Operations Plan. As with the proposed project, the No Project alternative would not impact mineral resources.</p> <p style="text-align: center;"><b>S</b></p>	<p>Past mining operations depleted mineral resources at the project site. As with the proposed project, the Existing General Plan alternative would not impact mineral resources.</p> <p style="text-align: center;"><b>S</b></p>	<p>Past mining operations depleted mineral resources at the project site. As with the proposed project, the Reduced Intensity alternative would not impact mineral resources.</p> <p style="text-align: center;"><b>S</b></p>	<p>Past mining operations depleted mineral resources at the project site. As with the proposed project, the Tractor Trailer Storage alternative would not impact mineral resources.</p> <p style="text-align: center;"><b>S</b></p>
<b>Noise</b>	<p>The No Project alternative would leave the site in its reclaimed condition upon implementation of the Nu-Way Landfill Operations Plan. The No Project alternative would not generate any new construction or operation-related noise.</p> <p>Impacts would be reduced relative the proposed project, and as with the proposed project, would be less than significant without mitigation.</p>	<p>Development of the Existing General Plan alternative would entail an increase in construction activities and in operational noise in comparison to the proposed project. There may be manufacturing uses that increase noise in comparison to the warehousing uses. As shown in Tables 7-2 and 7-3 respectively, this alternative would result in approximately 6.5 times as many daily vehicle trips and almost 9 times the VMT as the proposed project (Option 1). Although both auto trips and truck trips would be substantially higher than the proposed project, the proportion of truck trips would be substantially less. Truck trips, however, would still be approximately double the truck trips of the proposed project (Option 1). Transportation-related noise under this alternative, therefore, would also be greater than the proposed project. Although mitigation measures may be required, it is anticipated that noise for this alternative could be reduced to less than significant.</p>	<p>The substantial reduction in warehousing square footage under this alternative in comparison to the proposed project would reduce both construction-related and operation-related noise. Transportation-generated noise would also be substantially reduced since daily trips would be less than ¼ of the proposed project trips (see Table 7-2).</p> <p>As with the proposed project, noise impacts would be less than significant and not require mitigation measures.</p>	<p>The substantial reduction in building square footage under this alternative would reduce construction-related noise in comparison to the proposed project. Transportation-related impacts are also likely to be greater than the proposed project. Although overall, daily trips would be less for this alternative, truck trips would increase from 529 for the proposed project (Option 1) to 1,004 for the truck trailer storage alternative.</p> <p>The relative impact of the warehousing operational noise in comparison to the truck trailer storage is less definitive. Operational noise for the proposed project would include loading dock activity, parking lot vehicle activities, rooftop air conditioning units, and truck movements, assumed to occur at the same time. The truck trailer storage noise generation would be more limited (truck movements), but developed per the</p>

7. Alternatives to the Proposed Project

**Table 7-4 Project Alternatives: Environmental Impact Comparison**

Impact	No Project	Existing General Plan	Reduced Intensity Alternative	Tractor Trailer Storage Alternative
	LT	GT	LT	conceptual site plan, would cover the entire site and result in activity closer to sensitive receptors. Overall, the noise impact is considered to be similar to the proposed project. S
<b>Population and Housing</b>	Under the No Project alternative the site would remain vacant. There would be no development or infrastructure improvements that could directly or indirectly induce unplanned population growth. Also, as with the proposed project, the No Project alternative would not displace housing. As with the proposed project, this alternative would not impact Population and Housing. S	Based on the employee generation factors used to analyze the proposed project (see Chapter 8, <i>Impacts Determined Not to Be Significant</i> ), the Existing General Plan alternative would generate 9,287 employees for light manufacturing uses (based on 463 SF/emp) and 143 employees for neighborhood retail uses (70 SF/emp) for a total of 9,430 employees. This total is not within the SCAG 2035 employee projection for the City, which would accommodate a total of 5,771 employees beyond the 2020 employee estimate. Considering cumulative development occurring within the City, the cumulative employee generation is likely to further exceed the projection and potentially result in a significant, indirect population and or housing need impact. The population and housing impact of this alternative, therefore, would be greater than the proposed project. GT	Based on the employee generation factors used to analyze the proposed project (see Chapter 8, <i>Impacts Determined Not to Be Significant</i> ), the Reduced Intensity Project alternative (Option 1) would generate 227 employees for warehousing uses (based on 463 SF/emp) and 25 employees for office uses (228 emp/SF) for a total of 252 employees. As with the proposed project, this alternative would not displace housing and the employee projection is within the SCAG projections. This alternative, would, therefore, not impact population and housing. S	Based on the employee generation factors used to analyze the proposed project (see Chapter 8, <i>Impacts Determined Not to be Significant</i> ), the Tractor Trailer Storage Project alternative would generate 17 employees for its 36,726 SF of warehousing uses (based on 463 SF/emp) and 18 employees for 4,000 SF of office uses (228 emp/SF) for a total of 35 employees. As with the proposed project, this alternative would not displace housing and the employee projection is within the SCAG projections. This alternative, would, therefore, not impact population and housing. S
<b>Public Services</b>	Under the No Project alternative the site would remain vacant. There would be no development or infrastructure improvements. This alternative would not generate population, employees, or visitors/customers that could affect public services. This alternative, therefore, would result in No Impact to fire, police, school and library services. Similarly, it would not affect parks. This impact would reduce impacts in comparison to the proposed project. As with the proposed project, impacts to public services would be less than significant. LT	The more intensive development under the Existing General Plan alternative would generate an estimated 9,430 employees and would also generate potential manufacturing-use customers as well as retail customers. The demand for police and fire services would be greater than the proposed project. As with the proposed project, however, it is anticipated that the additional demand for public services would be funded by the development's property and sales taxes and development impact fees. As with the proposed project, this alternative would not directly generate an increased demand for school or library services. GT	The demand for public services for the Reduced Intensity Alternative would be substantially reduced in comparison to the proposed project. As with the proposed project, however, the additional demand for public services would be funded by the development's property and sales taxes and development impact fees. Also as with the proposed project, this alternative would not directly generate an increased demand for school or library services. LT	The Truck Trailer Storage alternative would generate minimal demand for public services. The site would be a large parking lot for the trailers and only an estimated 35 employees would be generated by the warehousing and office uses. This alternative would not include an Optional BESS use which would potentially generate some demand for fire services. As with the proposed project, public services would be funded by the developments' property taxes and development impacts fees, and impacts would be less than significant. LT
<b>Recreation</b>	As with the proposed project, the No Project (no development) alternative would not generate demand for parks and recreational facilities, and this alternative would not include any recreational facilities that could impact the environment. This alternative would not impact Recreation. S	As with the proposed project, the Existing General Plan alternative would not generate demand for parks and recreational facilities, and this alternative would not include any recreational facilities that could impact the environment. This alternative would not impact Recreation. S	As with the proposed project, the Reduced Intensity alternative would not generate demand for parks and recreational facilities, and this alternative would not include any recreational facilities that could impact the environment. This alternative would not impact Recreation. S	As with the proposed project, the Tractor Trailer Storage alternative would not generate demand for parks and recreational facilities, and this alternative would not include any recreational facilities that could impact the environment. This alternative would not impact Recreation. S
<b>Transportation</b>	The No Project alternative would not generate any vehicle trips and would conflict with CEQA Guidelines Section 15064.3(b), which outlines the criteria to determine project-related transportation impacts. In accordance with the criteria, if a project has no impact on VMT, the impact is considered less than significant. Implementation of this alternative would not increase roadway hazards and would not affect emergency access. It would not, however, provide the benefits of the roadway and access improvements of the proposed project, including implementation of the mitigation measures (installation of a new bus stop at Live Oak Avenue and Live Oak Lane and trail improvements along a portion of Live Oak Avenue to connect to the San Gabriel River Trail). Transportation impacts, therefore, would be slightly greater for this alternative than the proposed project. As with the proposed project, they would be less than significant.	The Existing General Plan alternative would generate substantially more vehicle trips and VMT than the proposed project (see Tables 7-2 and 7-3). The metric used to evaluate the significance of transportation impacts (consistency with CEQA Guidelines 15064.3), however, is VMT/employee. This alternative would generate a proportionate increase in employees, and the VMT/employee would be the same as the proposed project (20.8 VMT/employee without mitigation). Assuming the same mitigation measures as the proposed project, the VMT/employee would be 18.4 (as with the proposed project) and would be less than significant. This alternative would comply with the City's and Los Angeles County Fire Department's roadway design standards and would not result in an increase in roadway hazards or inadequate emergency access. Overall, the transportation impact of this alternative would be similar to the proposed project.	As shown in Tables 7-2 and 7-3, this alternative would substantially decrease total vehicle trips and VMT in comparison to the proposed project. Since the number of employees would be proportionate to the total VMT reduction, the resultant VMT/employee would be the same as the project (20.8 without mitigation and 18.4 with mitigation). Since a VMT/employee of 18.5 is the significance threshold for the City of Irwindale, this impact would be less than significant. This alternative would comply with the City's and Los Angeles County Fire Departments' roadway design standards, and would not result in an increase in roadway hazards or inadequate emergency access. Overall, the transportation impact of this alternative would be similar to the proposed project.	The Tractor Trailer Storage alternative would increase truck trips in comparison to the proposed project and decrease employee trips. Since the average truck trip is 40 miles and the auto trip length is 20 miles, the total VMT for this project would be similar to the proposed project (see Table 7-4). The VMT/employee would be the same as for the proposed project, and can be assumed to be less than significant with mitigation measures. This alternative would comply with the City's and Los Angeles County Fire Department's roadway design standards and would not result in an increase in roadway hazards or inadequate emergency access. Overall, the transportation impact of this alternative would be similar to the proposed project.

7. Alternatives to the Proposed Project

**Table 7-4 Project Alternatives: Environmental Impact Comparison**

Impact	No Project	Existing General Plan	Reduced Intensity Alternative	Tractor Trailer Storage Alternative
	GT	S	S	S
<b>Tribal Cultural Resources</b>	No grading or ground disturbance beyond the baseline conditions (implementation of the Nu-Way Landfill Operations Plan) would occur under the No Project alternative. There would be no potential for disturbance to any Tribal Cultural Resource (TCR) if present within the project site or immediately adjacent area. This alternative would reduce potential impacts to TCRs in comparison to the proposed project, and no mitigation would be required.	The Existing General Plan Alternative would develop the project site with approximately 49 acres of light manufacturing uses and 10,000 SF of retail use. This development would occur within the same project footprint as the proposed project and would likely require a similar or increased scale of offsite utility improvements that would also occur in previously disturbed environments (surrounding streets). As with the proposed project, it is anticipated that this alternative would require additional excavation and grading of the project site beyond the ground-disturbance completed under the Operations Plan. As such, impacts to potential TCRs present within or immediately adjacent to the project site could be impacted. This alternative would also require the implementation of Mitigation Measures TCR-1, TCR-2, and TCR-3. Potential TCR impacts would be less than significant upon implementation of these measures. Therefore, impacts to TCRs under this alternative would be similar to the proposed project.	Under the Reduced Intensity Alternative, warehousing development would be limited to 121,243 square feet (12 percent of Option 1 of the proposed project SF). Much of the site would likely remain undisturbed. This alternative could also accommodate a BESS use (which is assumed to be the same acreage as the proposed project Option 2). However, the construction of offsite utility improvements to serve the uses under this alternative would still be required. Since the development footprint and ground disturbing would be reduced in comparison to the proposed project, potential TCR impacts would also be reduced. This alternative would still require implementation of Mitigation Measures TCR-1, TCR-2, and TCR-3. Potential TCR impacts would be less than significant upon implementation of these measures. These measures would reduce the impacts to less than significant.	The Truck Trailer Storage Alternative would develop most of the site with a parking lot. Minimal grading beyond the Operations Plan rough grading would be anticipated. The construction of the offsite utility improvements would be required to serve the 40,276 SF warehousing/office building. Therefore, this alternative can be assumed to result in similar impacts to potential TCR resources, requiring the implementation of Mitigation Measures TCR-1, TCR-2, and TCR-3. Impacts would be less than significant.
	LT	S	LT	S
<b>Utilities and Service Systems</b>	Due to the increase in land use intensity under the proposed project, upgrades to existing utilities and service systems would be required, such as upgrading water, wastewater, and storm drainpipes and fixtures to tie into off-site connections. These improvements would not occur under the No Project alternative. This alternative would also eliminate the ongoing increased need for services and resources (including water supply and treatment, wastewater treatment, natural gas, and electricity) in comparison to the proposed project. Therefore, the No Project alternative would reduce impacts to utility services compared to the proposed project. Impacts would be less than significant as with the proposed project.	This alternative would accommodate approximately 1 million SF of building space more than Option 1 of the proposed project, and, would increase the demand for utility and service systems. However, as with the proposed project, utility service impacts would be less than significant since future development would need to prepare sewer, water, and stormwater capacity analyses in line with local and County regulations to ensure these utilities are not adversely impacted.	This alternative would reduce building square footage to approximately 12 percent of the SF of the proposed project (for both Option 1 and Option 2). It would substantially reduce demand for utility and service system. Moreover, this alternative includes a BESS alternative. Implementation of a BESS would further reduce the utility impacts of this project, as it would provide renewable energy storage. As with the proposed project, utility service impacts would be less than significant.	Because this alternative would introduce reduced square footage when compared to the proposed project, this alternative would decrease demand for utility and service system. As with the proposed project, utility service impacts would be less than significant.
	LT	GT	LT	LT
<b>Wildfire</b>	No grading or ground disturbance beyond the baseline conditions (implementation of the Nu-Way Landfill Operations Plan) would occur under the No Project alternative. This alternative would not impair emergency response or evacuation response. The site is not within or adjacent to a high or very high Fire Hazard Safety Zone (FHSZ). It is an urbanized area and not adjacent to wildlands. There would be no potential wildfire impacts beyond baseline conditions.	Since, as with the proposed project, the majority of the project site would be developed, this alternative would entail similar fire protection infrastructure as required by the Los Angeles County Fire Department (LACFD) for the proposed project (fire sprinklers, fire hydrants, and fire flow storage). Development would also be subject to City and LACFD design standards to ensure emergency access and compliance with evacuation plans. Wildfire impacts would be similar to the proposed project and would be less than significant.	Although the Reduced Intensity Alternative would entail a smaller development footprint, the exposure to potential wildland fires and required protection measures would be the same as the proposed project. This impact would be similar and less than significant upon compliance with regulatory requirements.	As with the proposed project, the Tractor Trailer Storage alternative would not impair an emergency response plan or emergency evacuation plan. The project would not exacerbate fire risks due to slope, prevailing winds, or other factors related to wildfire. The exposure to potential wildland fires and required protection measures would be the same as the proposed project. This impact would be similar and less than significant upon compliance with regulatory requirements.
	LT	S	S	S

## 7. Alternatives to the Proposed Project

### 7.3.3 Conclusion

#### 7.3.3.1 ABILITY TO REDUCE ENVIRONMENTAL IMPACTS

Implementation of the Irwindale Gateway Specific Plan (proposed project) would not result in any impacts to two resources (agricultural and recreation). It would result in less than significant impact to sixteen impact categories, including three impacts that would require mitigation (cultural resources, transportation, and tribal cultural resources). Two impacts (air quality and greenhouse gases) would remain significant even after feasible mitigation is implemented.

Table 7-6 summarizes the environmental impacts of each alternative compared to the proposed project.

**Table 7-6 Summary of Proposed Project and Alternatives Impacts**

Topic	Proposed Project	No Project Alternative	Existing General Plan	Reduced Intensity	Truck Trailer Storage
Aesthetics	LTS	+	+	+	+
Agricultural Resources	NI	=	=	=	=
Air Quality	S/U	-	+	-	-
Biological Resources	LTS	=	=	=	=
Cultural Resources	LTS/M	-	=	-	=
Energy	LTS	-	+	-	-
Geology and Soils	LTS	-	+	=	-
Greenhouse Gas Emissions	S/U	-	+	-	-
Hazards and Hazardous Materials	LTS	-	=	-	-
Hydrology and Water Quality	LTS	+	=	=	=
Land Use and Planning	LTS	-	-	+	+
Mineral Resources	LTS	=	=	=	=
Noise	LTS	-	+	-	=
Population and Housing	LTS	=	+	=	=
Public Services	LTS	-	+	-	-
Recreation	NI	=	=	=	=
Transportation	LTS/M	+	=	=	=
Tribal Cultural Resources	LTS/M	-	=	-	=
Utilities and Service Systems	LTS	-	+	-	-
Wildfire	LTS	-	=	=	=

## 7. Alternatives to the Proposed Project

**Table 7-6 Summary of Proposed Project and Alternatives Impacts**

Topic	Proposed Project	No Project Alternative	Existing General Plan	Reduced Intensity	Truck Trailer Storage
<b>Totals</b>					
Reduced Impact (-)		12	1	9	7
Similar Impact (=)		5	10	9	11
Greater Impact (+)		3	9	2	2
Significant Impact Eliminated		2	0	1	0

Notes: NI= No Impact, LTS = Less than Significant; LTS/M = Less than Significant with Mitigation Incorporated; S/U = Significant and Unavoidable  
 (-) The alternative would result in less of an impact than the proposed project.  
 (+) The alternative would result in greater impacts than the proposed project.  
 (=) The alternative would result in the same/similar impacts as the proposed project.

**No Project Alternative.** This alternative would result in similar impacts to 5 impact categories, reduce or eliminate impacts to 12 environmental impacts, and increase impacts to 3 categories. Impacts would be similar for agricultural, biological, and mineral resources; population and housing; and recreation. This alternative would reduce impacts for air quality, cultural resources, energy, geology and soils, greenhouse gases, hazards, land use and planning, noise, public services, tribal cultural resources, utilities, and wildfire. The significant, unavoidable project-related impacts would be eliminated under the No Project alternative. Because the beneficial improvements under the proposed project for aesthetic, hydrology, and transportation would not occur under this alternative, the impacts to these categories would be considered greater than the proposed project. Overall, impacts under this alternative would be decreased in comparison to the proposed project.

**Existing General Plan Alternative.** This alternative would only reduce impacts to one category in comparison to the proposed project: land use and planning. This is because the project would be consistent with the existing General Plan land use designation and would not require a General Plan amendment. This alternative would result in similar impacts to 10 impact categories and increased impacts to 9 categories. Impacts would be similar for agricultural, biological, and cultural resources; hazards; hydrology; minerals; recreation; transportation; tribal cultural resources; and wildfire. This alternative would increase impacts to aesthetics, air quality, energy, geology, greenhouse gases, noise, population and housing, public services, and utilities. As with the proposed project, impacts to air quality and greenhouse gas emissions would remain significant and unavoidable. Overall, impacts under this alternative would be increased in comparison to the proposed project.

**Reduced Intensity Alternative.** This alternative would reduce impacts to 9 environmental impacts, result in similar impacts to 9 categories, and increase 2 impacts. It would reduce impacts to air quality, cultural resources, greenhouse gas emissions, hazards, noise, public services, tribal cultural resources, and utilities. This alternative would eliminate the significant, unavoidable impact to greenhouses gases. Impacts would be similar for agricultural resources, biological resources, geology, hydrology, minerals, population and housing, recreation, transportation, and wildfire. Impacts to aesthetics and land use and planning would be greater than the proposed project. As with the proposed project, impacts to air quality would remain significant and unavoidable. Overall, impacts under this alternative would be reduced in comparison to the proposed project.

## 7. Alternatives to the Proposed Project

**Trailer Storage Alternative.** This alternative would reduce impacts to 7 environmental impacts, have similar impacts to 11 categories, and increase 2 impacts in comparison to the proposed project. It would reduce impacts to air quality, energy, geology, greenhouse gas emissions, hazards, public services, and utilities. Impacts would be similar for agricultural, biological and cultural resources; hydrology, mineral resources, noise, population and housing, recreation, transportation, tribal cultural resources, and wildfire. It would increase impacts to aesthetics and land use and planning. As with the proposed project, impacts to air quality and greenhouse gas emissions would remain significant and unavoidable. Overall, impacts under this alternative would be reduced in comparison to the proposed project.

### 7.3.3.2 ABILITY TO ACHIEVE PROJECT OBJECTIVES

Table 7-7 summarizes each alternative’s ability to achieve the project objectives.

**Table 7-7 Ability of Each Alternative to Meet the Project Objectives**

Objective	Proposed Project	No Project Alternative	Existing General Plan	Reduced Intensity	Truck Trailer Storage
1. Create a comprehensive master plan for the re-use of a reclaimed sand and gravel quarry including the development of a utility scale battery energy storage system.	Yes	No	No	Yes	No
2. Provide state-of-the-art buildings that can accommodate various industrial and manufacturing uses, including warehouse distribution, logistics, and fulfillment centers with proximate access to Interstate 605 on- and off-ramps.	Yes	No	No	Yes	No
3. Ensure that infrastructure plans for water, sewer, and drainage are adequately designed for the Specific Plan Area.	Yes	No	Yes	Yes	Yes
4. Provide a circulation system that meets transportation requirements and minimizes potential adverse impacts on the surrounding area.	Yes	No	Yes	Yes	Yes
5. Provide guidelines and standards for architecture, landscaping, walls, fencing, lighting, and entry treatments that are compatible with the design and architecture of the surrounding uses.	Yes	No	No	Yes	No

The No Project alternative, as shown in Table 7-7, does not meet any of the proposed project’s objectives.

The Existing General Plan alternative would achieve two of the project objectives. It is assumed that with compliance of existing regulations and City and other agency requirements and permitting reviews, that this alternative would ensure adequately designed infrastructure and circulation systems (Objectives Nos. 3 and 4). Although this alternative could provide state-of-the-art buildings that accommodate various industrial and manufacturing uses, the existing General Plan would not allow warehousing distribution and logistics uses at

## 7. Alternatives to the Proposed Project

this project site (Objective No. 2). Similarly, it would not permit a battery energy storage system as stipulated in Objective No. 1. And finally, although this alternative would comply with existing City land use, zoning and design guidelines, it would not provide project-specific detailed guidelines and standards for architecture, landscaping, walls, fencing, lighting, and entry treatments that are required in a specific plan (Objective No. 5).

The Reduced Intensity alternative would represent a similar project as the proposed project, but with a substantial reduction in building square footage. It would offer an Option 1 scenario as well as an Option 2 scenario that could accommodate a battery energy storage system (BESS) identical to the proposed project's BESS (Objectives Nos. 1 and 2). The land uses (both warehousing and the BESS) would require a General Plan amendment, and it is assumed that a Specific Plan would be prepared. Along with City and service providers' requirements and review, the Specific Plan would ensure that infrastructure plans (water, sewer, and drainage) are adequately designed (Objective No. 3). Similarly, the Specific Plan and City/agency reviews would ensure that circulation improvements minimize potential adverse impacts in the project area (Objective No. 4). Finally, a Specific Plan would provide detailed guidelines and standards for architecture, landscaping, walls, fencing, lighting, and entry treatments that are required in a Specific Plan (Objective No. 5). Although the Reduced Intensity Alternative has the potential to meet each of the project objectives, the success of achieving these objectives would be dependent upon the economic viability of the land uses defined. There is no certainty that the limited use required to avoid a significant greenhouse gas impact would be sufficient to finance the required infrastructure and amenities outlined in a Specific Plan. Moreover, with such a limited warehousing use within the large site (52 acres under Option 1 and 37 acres under Option 2), much of the site would be vacant.

The Truck Trailer Storage alternative would substantially reduce the overall building square footage, but would develop most of the site, much like the proposed project. This alternative would only meet two out of the five project objectives. Specifically, this alternative would only meet Objective Nos. 3 and 4. It would ensure that infrastructure plans for water, sewer, and drainage are adequately designed for the project area and would provide a circulation system that meets transportation requirements and minimizes potential adverse impacts. Since it is unlikely that a Specific Plan would be prepared for this use, it would not provide guidelines and standards for architecture, landscaping, walls, fencing, lighting, and entry treatments that are compatible with the design and architecture of the surrounding uses (Objective No. 5). A comprehensive master plan for the re-use of a reclaimed sand and gravel quarry including the development of a utility scale battery energy storage would not be a part of this alternative (Objective No. 1). Lastly, as the warehousing square footage is limited to one 40,726 SF building (which includes 4,000 SF office), it would not provide state-of-the-art buildings that can accommodate various industrial and manufacturing uses, including warehouse distribution, logistics, and fulfillment centers with proximate access to Interstate 605 on- and off-ramps (Objective No. 2).

### 7.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires a lead agency to identify the "environmentally superior alternative"; in cases where the "No Project" alternative is environmentally superior to the proposed project, the environmentally superior development alternative must be identified. In this case, the No Project alternative would be considered the environmentally superior alternative. As summarized in Table 7-6, *Summary of Project and Alternative Impacts*, the No Project alternative would reduce 12 impacts and eliminate both of the significant, unavoidable impacts of the proposed project (air quality and greenhouse gases). The Reduced Intensity alternative is identified as

## 7. Alternatives to the Proposed Project

“environmentally superior” to the proposed project. This alternative reduces 9 of the impacts of the proposed project and only increases 2 impacts (aesthetics and land use and planning). It eliminates the significant greenhouse gas impact of the proposed project.

### 7.5 REFERENCES

CBRE. 2023. Ongoing Negative Economic Pressure Weakens GLA Office Fundamentals.

<https://mktgdocs.cbre.com/2299/499612d8-ccac-4121-a542-542cdc022b7e-2247583203.pdf>.

Concord Group, The. 2022, June. Market Analysis for Retail, Hotel and Industrial Uses in Irwindale, CA (Irwindale Gateway). Prepared for Kearny Real Estate Company. Appendix N.

Iteris. 2024, April, Irwindale Gateway SP Project Alternatives – Trip Generation and VMT Comparison. Appendix L1b

## 7. Alternatives to the Proposed Project

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## 8. Impacts Found Not to Be Significant

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California Public Resources Code Section 21003 (f) states: "...it is the policy of the state that...[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical, and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." This policy is reflected in the State California Environmental Quality Act (CEQA) Guidelines (Guidelines) Section 15126.2(a), which states that "[a]n EIR [Environmental Impact Report] shall identify and focus on the significant environmental impacts of the proposed project" and Section 15143, which states that "[t]he EIR shall focus on the significant effects on the environment." Guidelines Section 15128 requires that an EIR contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant, and were therefore not discussed in detail in the Draft EIR.

As required by Section 15128 of the CEQA Guidelines, an EIR shall contain a brief discussion stating the reasons why various possible significant effects of a project were determined not to be significant and are therefore not discussed in detail in the EIR. In accordance with the CEQA Guidelines, this section discusses the environmental issue areas where impacts were found to not be significant and were therefore not discussed in detail in the Draft EIR. Table 8-1, *Impacts Found Not to Be Significant*, includes an analysis for the following environmental topics where the project would have no impact.

- Agriculture and Forestry Resources
- Biological Resources
- Population and Housing
- Recreation
- Wildfire

### 8.1 AGRICULTURE AND FORESTRY RESOURCES

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**Impact AG-1:** The proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

---

#### Option 1

**No Impact.** CEQA considers impacts to three categories of important farmland: Prime Farmland, Farmland of Statewide Importance, and Unique Farmland. According to the California Department of Conservation Important Farmland Finder, there are no important farmlands in the Specific Plan area (DOC 2023a). There

## 8. Impacts Found Not to Be Significant

are also no existing agricultural uses in the Specific Plan area. Therefore, development in accordance with the proposed project under Option 1 and any zoning district changes proposed under the Irwindale Gateway Specific Plan would have no impact on important farmlands nor convert any farmland to nonagricultural use.

### Option 2

**No Impact.** The proposed project under Option 2 would have no impact on Threshold AG-1 for the same reasons as the proposed project under Option 1.

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**Impact AG-2: The proposed project would not conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or with a Williamson Act contract.**

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### Option 1

**No Impact.** See response to Impact AG-1, above. The California Department of Conservation Division of Land Resource Protection maintains updated maps showing lands bearing Williamson Act contracts. According to the California Williamson Act Enrollment Finder, there are no lands within all of Irwindale under Williamson Act contracts (DOC 2023b). Additionally, the Specific Plan area is not zoned for agricultural use (Irwindale 2018). Therefore, development in accordance with the proposed project under Option 1, and any zoning district changes proposed under Option 1 of the proposed project would not conflict with existing agricultural zoning or impact any Williamson Act lands.

### Option 2

**No Impact.** The proposed project under Option 2 would have no impact on Threshold AG-2 for the same reasons as the proposed project under Option 1.

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**Impact AG-3: The proposed project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)).**

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### Option 1

**No Impact.** Most of the project site is a former sand and gravel quarry and inert landfill and is currently undergoing remedial grading operations. The current and proposed zoning for the project site do not include any zoning for forest land, timberland, or timberland production. Thus, no impacts under Option 1 of the proposed project would occur.

### Option 2

**No Impact.** The proposed project under Option 2 would have no impact on Threshold AG-3 for the same reasons as the proposed project under Option 1.

## 8. Impacts Found Not to Be Significant

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**Impact AG-4:** The proposed project would not result in the loss of forest land or conversion of forest land to non-forest use.

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### Option 1

**No Impact.** See response to Threshold AG-3, above.

### Option 2

**No Impact.** See response to Threshold AG-3, above.

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**Impact AG-5:** The proposed project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.

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### Option 1

**No Impact.** See responses to Thresholds AG-1 through AG-3, above.

### Option 2

**No Impact.** See responses to Thresholds AG-1 through AG-3, above.

## 8.2 BIOLOGICAL RESOURCES

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**Impact BIO-1:** The proposed project would not 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 US Fish and Wildlife Service.

---

### Option 1

**Less Than Significant Impact.** The project site is a former sand and gravel quarry and inert landfill. It has been highly disturbed over the last 65 years, with mining on the site commencing in 1957. Mining operations ceased around 1973, and the depleted quarry pits extended to a maximum depth of 180 feet below ground surface. The Nu-Way Live Oak Inert Landfill operated on the site from about 1996 to 2005. Under landfill operation, the former quarry was backfilled with inert materials to its capacity at street level.

A majority of the project site is currently undergoing remedial grading operations. At the time of the Notice of Preparation for this Draft EIR, reclamation of the former landfill was underway in accordance with the August 22, 2022, Operations Plan as approved by the Los Angeles Regional Water Quality Control Board (RWQCB) (see Section 3.3.1.1, *Project Background*, of this DEIR). The site reclamation includes the removal/demolition of any remaining structures, remedial over-excavation, and rough grading the project site. The Operations Plan allows for reclamation of the project site through the excavation, screening, and placement of approximately 8.3 million cubic yards of fill material. Under the Operations Plan, existing fill is being excavated to a maximum depth of 120 feet. Excavated materials will be screened for noncompliant materials,

## 8. Impacts Found Not to Be Significant

which will be segregated and disposed of. The grading plan associated with the reclamation has been approved by the County of Los Angeles Department of Public Works and the City of Irwindale. This includes any applicable environmental review pursuant to CEQA. The approval and implementation of these activities serve as baseline (existing) conditions for analysis of potential environmental impacts in this DEIR.

The western portion of the project site contains a 9.61-acre Southern California Edison (SCE) easement that includes two detention basins. The ground cover in the basin consists of exposed soil with low to moderate native grass and weed growth. Per the Operations Plans, the site will be rough graded up to the limits of the two existing detention basins (see Figure 3-5, *Rough Grading Plan and Remedial Grading Over-Excavation*). The basins will be excavated, starting in native soils at the top of the pit walls and proceeding at a slope to the silt pond at the bottom of the pits, and the SCE easement would remain undeveloped under proposed conditions. Several mature street trees line the southern and eastern project site boundary along Live Oak Avenue and Live Oak Lane, respectively.

The project site is near riverine habitats of the San Gabriel River and a small channel along the northern end of the northern portion of Live Oak Lane, and near temporary and seasonal freshwater/wetland habitats comprising the southwestern portion of the Santa Fe Flood Control Dam. Proposed development would not disturb any of these habitats. Also, the project site is 0.34 miles southwest of the San Gabriel Canyon Significant Ecological Area (SEA), which is in the general location of the Santa Fe Flood Control Dam and serves as a critical habitat for southwestern willow flycatcher, a federal and State designated endangered species (*Empidonax traillii extimus*) (County of Los Angeles Enterprise GIS 2022; Wilson-Olgin 2023). However, this habitat is located north of the project site and is topographically separated from the project site by the Santa Fe Flood Control Dam. The dam has an approximate elevation of 510 feet, while the highest elevation at the project site is approximately 420 feet. The elevation of the southwestern willow flycatcher habitat in the dam basin is approximately 450 feet. While the southwestern willow flycatcher could potentially be present during ground-disturbing activities in the street trees abutting the site, no suitable habitat for the species exists on the project site, grading activities permitted under the Operations Plans will result in disturbed conditions on the project site prior to project activities, and the proposed project does not involve the removal of trees from the project site. The proposed project would also be required to comply with the Migratory Bird Treaty Act. For these reasons, no direct or indirect impacts would occur regarding the southwestern willow flycatcher habitat species.

According to the California Natural Diversity Database, two species of special concern, the coast horned lizard (*Phrynosoma blainvillii*) and coastal whiptail (*Aspidoscelis tigris stejnegeri*), have been observed and recorded within a mile of the project site (Wilson-Olgin 2023). The proposed project would not disturb any area that was not previously disturbed by reclamation activities, and the SCE easement would remain undeveloped under proposed conditions. Areas disturbed by reclamation activities would have no habitat suitable for the coast horned lizard or coastal whiptail. The portion of the SCE easement that is not disturbed by reclamation could include habitat suitable for these species but would not be disturbed by the proposed project.

Therefore, the proposed project would not result in 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. A less than significant impact would occur.

## 8. Impacts Found Not to Be Significant

### Option 2

**Less Than Significant Impact.** The proposed project under Option 2 would have a less than significant impact on Threshold BIO-1 for the same reasons as the proposed project under Option 1.

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**Impact BIO-2: The proposed project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.**

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### Option 1

**Less Than Significant Impact.** Sensitive natural communities are natural communities that are considered rare in the region by regulatory agencies; that are known to provide habitat for sensitive animal or plant species; or are known to be important wildlife corridors. Riparian habitats are along the banks of rivers and streams. As demonstrated in Impacts BIO-1 and BIO-3, project development under Option 1 would not result in an impact on any riparian habitat or other sensitive natural community. A less than significant impact would occur.

### Option 2

**Less Than Significant Impact.** The proposed project under Option 2 would have a less than significant impact on Threshold BIO-2 for the same reasons as the proposed project under Option 1.

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**Impact BIO-3: The proposed project would not 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.**

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### Option 1

**Less Than Significant Impact.** Wetlands are defined under the federal Clean Water Act as land that is flooded or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that normally does support, a prevalence of vegetation adapted to life in saturated soils. Wetlands include areas such as streams, swamps, marshes, and bogs. No wetlands regulated by the US Army Corps of Engineers, US Fish and Wildlife Services (USFWS), California Department of Fish and Wildlife, or Los Angeles RWQCB exist on the project site or locations where project features would be constructed offsite. According to the USFWS National Wetlands Mapper, the San Gabriel River and a smaller, 0.78-acre channel along the northern end of the northern portion of Live Oak Lane that connects to San Gabriel River are classified as riverine habitats (USFWS 2023). However, these habitats consist of concrete bed and banks and therefore do not support wetland resources such as saturated soil or wetland vegetation. Additionally, the southwestern portion of the Santa Fe Flood Control Dam is mapped as a freshwater pond, freshwater emergent wetland, and freshwater forested/shrub wetland that is seasonally or temporarily flooded (USFWS 2023). However, the area is separated from its immediate surroundings by a dam. Project development under Option 1 would not impact wetlands directly or indirectly. Therefore, a less than significant impact would occur.

## 8. Impacts Found Not to Be Significant

### Option 2

**Less Than Significant Impact.** The proposed project under Option 2 would have a less than significant impact on Threshold BIO-3 for the same reasons as the proposed project under Option 1.

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**Impact BIO-4: The proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.**

---

### Option 1

**Less Than Significant Impact.** There are no corridors valuable for overland wildlife movement or migration on, adjacent to, or in proximity to the project site. The project site and surroundings are in an urbanized area and not available for overland wildlife movement. The San Gabriel River, which is approximately 500 feet east of the eastern project site boundary, is a channelized river that consists of concrete bed and banks. Additionally, the southwestern portion of the Santa Fe Flood Control Dam, which is approximately 0.34 miles northeast of the project site, contains temporary and seasonal freshwater/wetland habitats. Project development would take place within the boundaries of the project site and adjacent urban lands to the south including Live Oak Avenue and the Rio Hono substation and would not impact the San Gabriel River or Santa Fe Flood Control Dam. Furthermore, the project site is mostly developed except for the western portion of the project site, which consists of native grass and weed growth. There are no trees or shrubs that are currently on-site. It is unlikely that the grass and weeds on-site would provide suitable habitat for any native resident or wildlife species, including nesting species. Therefore, under Option 1, a less than significant impact would occur.

### Option 2

**Less Than Significant Impact.** The proposed project under Option 2 would have a less than significant impact on Threshold BIO-4 for the same reasons as the proposed project under Option 1.

---

**Impact BIO-5: The proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.**

---

### Option 1

**Less Than Significant Impact.** The project site is void of vegetation due to remedial grading operations except for native grass and weed growth on the western portion of the project site. The proposed project under Option 1 would not involve the removal of trees. Furthermore, the proposed project under Option 1 would provide more trees than currently exist. Therefore, the proposed project under Option 1 would not conflict with any local policies or ordinances protecting biological resources, and a less than significant impact would occur.

### Option 2

**Less Than Significant Impact.** Similar to Option 1, the proposed project under Option 2 would not involve the removal of trees. The proposed project under Option 2 would provide more trees than currently exist.

## 8. Impacts Found Not to Be Significant

Therefore, the proposed project under Option 2 would not conflict with any local policies or ordinances protecting biological resources, and a less than significant impact would occur.

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**Impact BIO-6: The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.**

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### Option 1

**No Impact.** The project site is in a highly urbanized area of the city and surrounded by industrial and commercial uses (see Figure 3-3, *Aerial Photograph*). It is not in a habitat conservation plan or natural community conservation plan (CDFW 2019; CBI 2023). The San Gabriel Canyon Significant Ecological Area (SEA) is the closest protected SEA, at 0.34 miles north of the project site (County of Los Angeles GIS Enterprise 2022). Project development under Option 1 would take place within the boundaries of the project site and adjacent area to the south including Live Oak Avenue and the Rio Hondo Substation and is not anticipated to impact the SEA in any way. Therefore, no impact is expected to occur.

### Option 2

**No Impact.** The proposed project under Option 2 would have no impact on Threshold BIO-6 for the same reasons as the proposed project under Option 1.

## 8.3 POPULATION AND HOUSING

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**Impact PH-1: The proposed project would not result in population growth in the project area.**

---

### Option 1

**No Impact.** The proposed project under Option 1 would be developed to serve warehousing and manufacturing needs of the region. Based on the US Green Building Council rates of 2,114 square feet per employee for warehousing land uses and 228 square feet per employee for office uses under 100,000 square feet, the proposed project under Option 1 would generate up to approximately 580 long-term new jobs (USGBC 2008). According to the Southern California Association of Governments (SCAG) forecasts, the City of Irwindale would have 20,300 jobs by 2020 and 21,000 jobs by 2035 (SCAG 2023). However, as of 2020, the City has only 15,229 jobs (US Census Bureau 2023). The new jobs generated by the Specific Plan would provide additional employment opportunities for residents in the area. However, population growth typically occurs when there is an expansion of residential development, and therefore an increase of new residents. As the Regional Housing Needs Assessment (RHNA) calculated for 2021-2029 has accounted for the housing need in Irwindale and the surrounding cities based on the forecast of 20,300 jobs by 2020, any new growth in population associated with the proposed project would not exceed housing assumptions from the RHNA. The proposed project under Option 1 would not increase the number of residential units available or designate new land uses that may generate an increased population. Therefore, no impact would occur.

## 8. Impacts Found Not to Be Significant

### Option 2

**No Impact.** Utilizing the same rates of square feet per employee that were used under Option 1, the proposed project under Option 2 would generate up to 475 long-term new jobs. However, similar to Option 1, the proposed project under Option 2 does not propose new residential units or designate new land uses that could induce substantial unplanned population growth. Furthermore, any new growth in population associated with the proposed project would not exceed housing assumptions from the RHNA. Therefore, no impact would occur.

---

**Impact PH-2: Project implementation would not result in displacing people and/or housing.**

---

### Option 1

**No Impact.** There currently is no housing on the project site. Therefore, the proposed project under Option 1 would not displace people or housing. No impact would occur.

### Option 2

**No Impact.** The proposed project under Option 2 would have no impact on Threshold PH-2 for the same reasons as the proposed project under Option 1.

## 8.4 RECREATION

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**Impact REC-1: The proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial deterioration of the facility would occur or be accelerated.**

---

### Option 1

**No Impact.** Typically, the demand for parks is created by the development of new housing and other actions that generate additional population. The proposed project under Option 1 would not construct any type of residential use or other land use that would generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities. Therefore, implementation of the proposed project under Option 1 would not result in the increased use or substantial physical deterioration of an existing neighborhood or regional park, and no impacts would occur.

### Option 2

**No Impact.** The proposed project under Option 2 would have no impact on Threshold REC-1 for the same reasons as the proposed project under Option 1.

## 8. Impacts Found Not to Be Significant

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**Impact REC-2: The proposed project would not include recreational facilities nor require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.**

---

### Option 1

**No Impact.** See response to Impact REC-1, above. The proposed project under Option 1 would not construct any new on- or off-site recreational facilities, nor would it expand existing off-site recreational facilities. Therefore, the proposed project under Option 1 would not require the construction or expansion of additional recreational facilities that would have an adverse impact on the environment, and no impacts would occur.

### Option 2

**No Impact.** The proposed project under Option 2 would have no impact on Threshold REC-2 for the same reasons as the proposed project under Option 1.

## 8.5 WILDFIRE

If located in or near state responsibility areas or land classified as very high fire hazard severity zones (FHSZ), would the proposed project pose a potentially significant impact with respect to wildfire. A very high FHSZ is adjacent to the northern boundary of the project site in the approximate location of the open space area that is associated with the San Gabriel River flood control.

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**Impact WF-1: The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan.**

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### Option 1

**Less Than Significant Impact.** The proposed project under Option 1 would not conflict with adopted emergency response or evacuation plans. The surrounding roadways would continue to provide emergency access to the project site and surrounding properties during and after construction. The project site would include designated fire lanes and signage that clearly indicates emergency access points. Vehicular access for the project site would be provided via six driveways—four driveways along Live Oak Lane that connect to Live Oak Avenue to the south of the project site, and two driveways along Live Oak Lane that provide access to Arrow Highway north of the project site. The proposed project under Option 1 would not result in inadequate emergency access, and impacts to adopted emergency response and evacuation plans are less than significant.

### Option 2

**Less Than Significant Impact.** The proposed project under Option 2 would have no impact on Threshold WF-1 for the same reasons as the proposed project under Option 1.

## 8. Impacts Found Not to Be Significant

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**Impact WF-2: The proposed project would not exacerbate wildfire risks due to slope, prevailing winds, and other factors, and thereby would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire.**

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### Option 1

**Less Than Significant Impact.** The project site is in an urbanized area of the City of Irwindale and is not within or immediately adjacent to any wildlands. It is not in or near a State Responsibility Area but is in a Local Responsibility Area. The site is not in a designated very high FHSZ (CAL FIRE 2023). The nearest very high FHSZ is near the northern boundary of the project site on the opposite side of Arrow Highway and associated with a San Gabriel River flood control area on the opposite side of the 605 freeway (see Figure 8-1, *Fire Hazard Safety Zones*). The portions of the I-605 on-ramp, Arrow Highway, and Live Oak Lane that abut the northern end of the project site would serve as fire breaks separating the project from this area. Therefore, the proposed project under Option 1 would not exacerbate wildfire risks or expose the proposed project's occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire within such an area, and impacts would be less than significant.

### Option 2

**Less Than Significant Impact.** The proposed project under Option 2 would have no impact on Threshold WF-2 for the same reasons as the proposed project under Option 1.

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**Impact WF-3: The proposed project would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.**

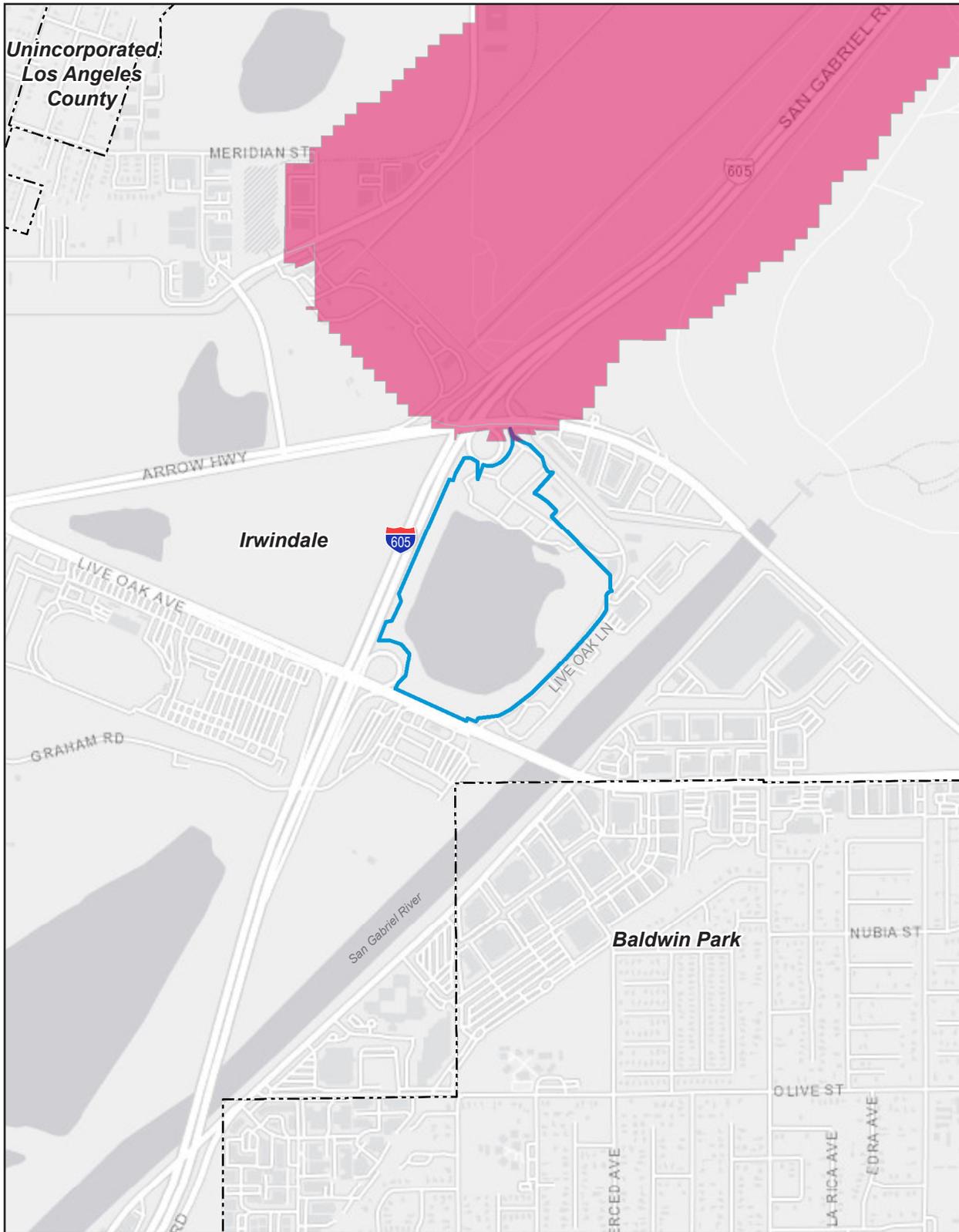
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### Option 1

**Less Than Significant Impact.** The project site is not in a high FHSZ or very high FHSZ but is adjacent to a very high FHSZ and in a highly urbanized part of the city. As described in Section 5.15, *Utilities and Service Systems*, the proposed project under Option 1 would not require the construction of new or expanded electricity, natural gas, or telecommunication facilities. The proposed project under Option 1 would connect to existing dry utilities in Live Oak Avenue and would not add infrastructure such as roads or overhead power lines. The proposed project under Option 1 would include fire protection infrastructure required by the Los Angeles County Fire Department, such as fire sprinklers, fire hydrants, and on-site fire flow storage (with a capacity for 1,000 gallons per hour at 20 psi). All the proposed fire protection infrastructure would enhance fire protection services on-site and not exacerbate fire risk. The proposed project under Option 1 would not require the installation or maintenance of infrastructure that may exacerbate fire risk. Therefore, impacts would be less than significant.

5. Environmental Analysis

Figure 8-1 - Fire Hazard Safety Zones



— Project Site Boundary      **FHSZ (LRA)**  
- - - City Boundary               Very High

0                      1,000  
Scale (Feet)



Source: CAL FIRE, 2023.

## 8. Impacts Found Not to Be Significant

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## 8. Impacts Found Not to Be Significant

### Option 2

**Less Than Significant Impact.** The proposed project under Option 2 has the same project site as the proposed project under Option 1 and is therefore not in a high FHSZ or very high FHSZ but is adjacent to a very high FHSZ. As described in Chapter 3, *Project Description*, the proposed project under Option 2 involves the construction of a BESS and interconnection facilities that would connect the BESS to the SCE Rio Hondo Substation. A portion of the electric tie-line may be installed underground. Although the project site is adjacent to a very high FHSZ, the proposed electrical infrastructure itself would not be adjacent to the FHSZ because it would be on the southern end of the project site primarily in developed terrain with no vegetated connection to wildlands. The electrical infrastructure would undergo maintenance to ensure that there is no fuel buildup that would exacerbate fire risk on- or off-site. Construction, operation, and maintenance associated with this infrastructure would adhere to all federal, State, and local laws, regulations, codes, and safety standards. Furthermore, as with Option 1, the proposed project under Option 2 would include fire protection infrastructure, including fire detection and protection systems built into each battery container of the BESS, and a centralized Fire Alarm Control Panel that communicates any potential risk to site operators and the local fire department. All the proposed fire protection systems and infrastructure would enhance fire protection on-site and not exacerbate fire risk. The proposed project under Option 2 would not require the installation or maintenance of infrastructure that may exacerbate fire risk. Therefore, impacts would be less than significant.

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**Impact WF-4:** The proposed project would not expose people or structures to significant fire risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

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### Option 1

**Less Than Significant Impact.** The project site is not in a 100-year or 500-year floodplain (FEMA 2008). As described in Section 5.5, *Geology and Soils*, although part of the project site is in a zone for required investigation for earthquake-induced landslides, this zoning was assigned when there was an open pit on the site, which is no longer the case. In addition, the proposed project under Option 1 would be extensively regraded to eliminate the existing geotechnical deficiencies of the pit backfill. The project site and adjacent properties are flat, with no substantial elevation changes. In the absence of significant ground slopes, the potential for landslides is considered negligible. Therefore, it is unlikely that the project site would be susceptible to downslope or downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. The project site is also not in a very high FHSZ. Impacts would therefore be less than significant.

### Option 2

**Less Than Significant Impact.** The proposed project under Option 2 would have no impact on Threshold WF-4 for the same reasons as the proposed project under Option 1.

## 8.6 REFERENCES

California Department of Conservation (DOC). 2023a, June 1 (accessed). California Important Farmland Finder. <https://maps.conservation.ca.gov/DLRP/CIFF/>.

## 8. Impacts Found Not to Be Significant

- . 2023b, April 6. California Williamson Act Enrollment Finder.  
<https://gis.conservation.ca.gov/portal/home/webmap/viewer.html?webmap=18f7488c0a9d4d299f5e9c33b312f312>.
- California Department of Fish and Wildlife. 2019, April. California Natural Community Conservations Plans.  
<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline>.
- California Department of Forestry and Fire Protection (CAL FIRE). 2023, August 1 (accessed). FHSZ Viewer. <https://egis.fire.ca.gov/FHSZ/>.
- Conservation Biology Institute (CBI). 2023, July 31 (accessed). Habitat Conservation Plan (HCP), California.  
<https://databasin.org/datasets/c116dd0d32df408cb44ece185d98731c/>.
- County of Los Angeles Enterprise GIS. 2022, December 20. Significant Ecological Area (SEA).  
<https://egis-lacounty.hub.arcgis.com/datasets/lacounty::significant-ecological-area-sea/explore?location=34.113125%2C-117.973352%2C13.43>.
- Federal Emergency Management Agency (FEMA). 2008, September 26. National Flood Hazard Layer. FIRMette 06037C1700F. <https://msc.fema.gov/portal/firmette?latitude=34.10901800920675&longitude=-117.97513196150544>.
- Irwindale, City of. 2018. City of Irwindale Zoning Map (2018).  
<https://www.irwindaleca.gov/DocumentCenter/View/40/Zoning-Map?bidId=>.
- United States Fish and Wildlife Service (USFWS). 2023, July 31 (accessed). Wetlands Mapper.  
<https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>.
- United States Green Building Council (USGBC). 2008. Building Area per Employee by Business Type.
- Wilson-Olgin, Erinn (environmental program manager). 2023, March 8. Letter response to the notice of preparation. South Coast Region, California Department of Fish and Wildlife. See Appendix A2.

## 9. Significant Irreversible Changes Due to the Proposed Project

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Section 15126.2(d) of the CEQA Guidelines requires that an Environmental Impact Report (EIR) describe any significant irreversible environmental changes that would be caused by the proposed project should it be implemented.

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 highways 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. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

The following are the significant irreversible changes that would be caused by the proposed project, should it be implemented:

- Construction activities associated with the proposed project would entail the commitment of nonrenewable and/or slowly renewable energy resources; human resources; and natural resources such as asphalt, metal, water, and fossil fuels. Operational activities would also require the use of natural gas and electricity, liquid fuels such as gasoline and diesel, and water. The commitment of resources required for the construction and operation of the proposed project would limit the availability of such resources for future generations or for other uses during the life of the proposed project.
- An increased commitment of social services and public maintenance services (e.g., police, fire, sewer, and water services) would also be required. The energy and social service commitments would be long-term obligations in view of the low likelihood of returning the land to its existing condition once it has been developed.
- Employment growth related to project implementation would increase vehicle trips over the long term. Emissions associated with such vehicle trips would continue to contribute to the South Coast Air Basin's nonattainment designations for ozone, particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and lead (Los Angeles County only) under the California and National Ambient Air Quality Standards (AAQS), and nonattainment for nitrogen dioxide (NO<sub>2</sub>) under the California AAQS.
- Future development in accordance with the proposed project is a long-term and likely irreversible commitment of vacant parcels of land and redevelopment of existing developed land (i.e., Nu-Way Live Oak Inert Landfill) in the City of Irwindale.

## 9. Significant Irreversible Changes Due to the Proposed Project

Given the low likelihood that the land would revert to lower intensity uses or to its current form, the proposed project would generally commit future generations to these environmental changes. The commitment of resources to the proposed project is not unusual or inconsistent with projects of this type and scope. However, once these commitments are made, it is improbable that the Specific Plan area would revert to its current condition. Thus, the proposed project would result in significant irreversible changes to the environment.

# 10. Growth-Inducing Impacts of the Proposed Project

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Pursuant to Sections 15126(d) and 15126.2(e) of the CEQA Guidelines, this section is provided to examine ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Also required is an assessment of other projects that would foster other activities which could affect the environment, individually or cumulatively. To address this issue, potential growth-inducing effects will be examined through analysis of the following questions:

- Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?
- Would this project result in the need to expand one or more public services to maintain desired levels of service?
- Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?
- Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

Please note that growth-inducing effects are not to be construed as necessarily beneficial, detrimental, or of little significance to the environment. This issue is presented to provide additional information on ways in which this project could contribute to significant changes in the environment, beyond the direct consequences of developing the land use concept examined in the preceding sections of this EIR.

## **Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?**

Under Option 1, buildout of the Specific Plan would not involve construction or extension of major infrastructure. Project construction would involve installation of utility connections to existing infrastructure facilities next to the project site and improvements to street frontages.

Under Option 2, buildout of the proposed project would involve installation of utility connections to existing infrastructure facilities next to the project site and improvements to street frontages. The proposed BESS would include substation work at SCE's Rio Hondo substation, a new generation-tie transmission line, and a new

## 10. Growth-Inducing Impacts of the Proposed Project

project substation. Additionally, a transmission pole(s) and structured frame could be used to provide the minimum overhead generation tie line clearance between the two substations. However, these improvements would not foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment.

### **Would this project result in the need to expand one or more public services to maintain desired levels of service?**

As described in Chapter 5.12, *Public Services*, public service agencies were consulted during preparation of this DEIR, including Los Angeles County Fire Department and Irwindale Police Department. None of the service providers indicated that buildout of the Specific Plan would necessitate the immediate expansion of their services and facilities in order to maintain adequate and desired levels of service. Because no housing is proposed as part of the Specific Plan, no new residents would be added to the project area as a result of project buildout. Therefore, there would be no direct impacts to school and library services in the area. Overall, no future expansion of public services would be required to maintain existing levels of service under Options 1 and 2.

### **Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?**

Implementation of the Specific Plan would create varying levels of temporary construction employment opportunities as the project area builds out. This would be an indirect economic effect of this project that would not significantly affect the environment. Implementation of the proposed Specific Plan would generate short-term design, engineering, and construction jobs during project construction. Construction-related jobs would not result in a significant population increase because they would likely be filled by workers in the region. Construction would occur intermittently over the project phases. Construction would not result in a significant increase in population because the construction phases would be temporary, and buildings would be developed as the market demands.

The proposed Specific Plan would result in the creation of up to approximately 580 new long-term jobs under Option 1 and up to approximately 475 new long-term jobs under Option 2 (see Chapter 8, *Impacts Found Not to Be Significant*). As the number of employees in the Specific Plan area grows, these employees would seek shopping, entertainment, auto maintenance, and other economic opportunities in the surrounding area. This could encourage the creation of new businesses and/or the expansion of existing businesses to address these needs. Actual growth would depend on future market demand, site constraints, and property owners' willingness to take advantage of new development regulations. However, new neighborhood-serving commercial uses developed to serve the shopping needs of future employees would likely generate additional employment opportunities. Therefore, implementation of the Specific Plan would have both direct and indirect economic effects that could significantly affect the environment. The impacts from neighborhood commercial uses would be analyzed and any appropriate mitigation imposed on a project-by-project basis.

## 10. Growth-Inducing Impacts of the Proposed Project

### **Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?**

The Specific Plan would require the approval of discretionary actions; however, the proposed project would not set a precedent for future projects with similar characteristics. The proposed project would require the following approvals and adoptions from the Irwindale City Council:

- **General Plan Amendments.** Change the current land use designation from Regional Commercial to Specific Plan.
- **Zone Change.** Rezone from M-2 (Heavy Manufacturing) to Irwindale Gateway Specific Plan.
- **Site Plan Review and Design Review Permit (DA).** Review and approval of site plan and design review permit (DA) for the construction of three speculative industrial buildings.
- **Tentative Parcel Map.** Create seven total lots on the project site.

The approval of these actions changes the existing restrictions on growth set by the Irwindale General Plan and Zoning Code. The proposed project would not change the existing protocol for project approval and would not set a precedent that would make it more likely for other projects to gain approval of similar applications.

Moreover, no changes to any of the City's building safety standards (i.e., building, grading, plumbing, mechanical, electrical, fire codes) are proposed or required to implement the proposed project. Therefore, the proposed project would not involve a precedent-setting action that would encourage and/or facilitate other activities that could significantly affect the environment.

## 10. Growth-Inducing Impacts of the Proposed Project

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## 13. Bibliography

---

- American Society for Testing and Materials (ASTM). 2013, November. American Society for Testing and Materials (ASTM) Practice for ESAs: Phase I Assessment Process. ASTM Standard E 1527-13.
- . 2021, November. American Society for Testing and Materials (ASTM) Practice for ESAs: Phase I Assessments Process. ASTM Standard E 1527-21.
- Arroyo Seco Foundation. 2023, February 25 (accessed). The Rio Hondo Watershed. <https://www.arroyoseco.org/riohondowatershed.htm>.
- Bay Area Air Quality Management District (BAAQMD). 2017, May. California Environmental Quality Act Air Quality Guidelines. [http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en).
- Bol, Raymond (industrial account manager). 2021, June 8. Email Response. Waste Management Inc.
- California Air Pollution Control Officers Association (CAPCOA). 2022. California Emissions Estimator Model (CalEEMod). Version 2022.1.0. Prepared by ICF in collaboration with Sacramento Metropolitan Air Quality Management District.
- California Air Resources Board (CARB). 1992. Federal Attainment Plan for Carbon Monoxide.
- . 1999. Final Staff Report: Update to the Toxic Air Contaminant List.
- . 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*.
- . 2008, October. Climate Change Proposed Scoping Plan: A Framework for Change.
- . 2010, August. Proposed Regional Greenhouse Gas Emission Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375. Staff Report.
- . 2014, May 15. First Update to the Climate Change Scoping Plan: Building on the Framework, Pursuant to AB 32, The California Global Warming Solutions Act of 2006. <http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>.
- . 2016, May 4. Ambient Air Quality Standards. <https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf>.
- . 2017, January 18. California's Advanced Clean Cars Midterm Review. [https://ww2.arb.ca.gov/sites/default/files/2020-01/ACC%20MTR%20Summary\\_Ac.pdf](https://ww2.arb.ca.gov/sites/default/files/2020-01/ACC%20MTR%20Summary_Ac.pdf).

## 13. Bibliography

- . 2018, February. Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets. [https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375\\_Updated\\_Final\\_Target\\_Staff\\_Report\\_2018.pdf](https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375_Updated_Final_Target_Staff_Report_2018.pdf).
- . 2019, July 25. California and Major Automakers Reach Groundbreaking Framework Agreement on Clean Emission Standards. Press release # 19-23. <https://ww2.arb.ca.gov/news/california-and-major-automakers-reach-groundbreaking-framework-agreement-clean-emission>.
- . 2021, July 28. California Greenhouse Gas 2000-2019 Emissions Trends and Indicators Report. [https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000\\_2019/ghg\\_inventory\\_trends\\_00-19.pdf](https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf).
- . 2021, December 9. CARB Review of the South Coast 2021 Redesignation Request and Maintenance Plan. Staff Report. [https://ww2.arb.ca.gov/sites/default/files/2021-10/Staff\\_Report\\_for\\_the\\_South\\_Coast\\_PM2.5\\_Redesignation\\_Request\\_and\\_Maintenance\\_Plan.pdf](https://ww2.arb.ca.gov/sites/default/files/2021-10/Staff_Report_for_the_South_Coast_PM2.5_Redesignation_Request_and_Maintenance_Plan.pdf).
- . 2022, May 2 (accessed). 2022 Scoping Plan Update: Scenario Concepts Technical Workshop Presentations. <https://ww2.arb.ca.gov/resources/documents/2022-scoping-plan-update-scenario-concepts-technical-workshop-presentations>.
- . 2022. Hotspots Analysis and Report Program (HARP2), Risk Assessment Standalone Tool (RAST). Version 22118.
- . 2023, January 9 (accessed). Air Pollution Data Monitoring Cards (2017, 2018, 2019, 2020, and 2021). <https://www.arb.ca.gov/adam/topfour/topfour1.php>.
- . 2023, January 20 (accessed). Area Designations Maps/State and National. <https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>.
- . 2023, January 20 (accessed). Common Air Pollutants. <https://ww2.arb.ca.gov/resources/common-air-pollutants>.
- . 2023, May 19 (accessed). February 24-2, 2022, Board Meeting Agenda. <https://ww2.arb.ca.gov/ma022422>.
- . 2023, October. Short-Lived Climate Pollutants. <https://ww2.arb.ca.gov/our-work/programs/slcp/about>.
- California Climate Action Team (CAT). 2006, March. Climate Action Team Report to Governor Schwarzenegger and the Legislature.
- California Climate Change Center (CCCC). 2012, July. Our Changing Climate 2012: Vulnerability and Adaptation to the Increasing Risks from Climate Change in California.
- California Department of Conservation (DOC). 2022. CGS Information Warehouse: Tsunami Hazard Area Map. <https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps>.

### 13. Bibliography

- . 2023, June 1 (accessed). California Important Farmland Finder. <https://maps.conservation.ca.gov/DLRP/CIFF/>.
- . 2023, April 6. California Williamson Act Enrollment Finder. <https://gis.conservation.ca.gov/portal/home/webmap/viewer.html?webmap=18f7488c0a9d4d299f5e9c33b312f312>.
- . 2023, April 4 (accessed). Mines Online. <https://maps.conservation.ca.gov/mol/index.html>.
- . 2023, April 4 (accessed). Well Finder, CalGEM GIS. <https://maps.conservation.ca.gov/doggr/wellfinder/#openModal/-117.96546/34.11125/14>.
- California Department of Fish and Wildlife. 2019, April. California Natural Community Conservations Plans. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline>.
- California Department of Forestry and Fire Protection (CALFIRE). 2011. “City of Irwindale.” Very High Fire Hazard Severity Zones in LRA. Accessed August 7, 2023. <https://osfm.fire.ca.gov/media/5823/irwindale.pdf>.
- . 2023, August 1 (accessed). FHSZ Viewer. <https://egis.fire.ca.gov/FHSZ/>.
- California Department of Resources, Recycling, and Recovery (CalRecycle). 2019. Jurisdiction Disposal and Alternative Daily Cover (ADC) Tons by Facility. <https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Destination/DisposalByFacility>.
- . 2019. SWIS Facility Detail: Simi Valley Landfill & Recycling Center (56-AA-0007). <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/608?siteID=3954>.
- . 2019. SWIS Facility Detail: El Sobrante Landfill (33-AA-0217). <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2280?siteID=2402>.
- . 2019. Landfill Tonnage Reports. <https://www2.calrecycle.ca.gov/LandfillTipFees/>.
- . 2019. Estimated Solid Waste Generation Rates. <https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates>.
- . 2023. Solid Waste Information System website. Accessed August 7, 2023. <https://www2.calrecycle.ca.gov/SolidWaste/Site/Search>.
- California Department of Transportation (Caltrans). 1995, June. Traffic Noise Attenuation as a Function of Ground and Vegetation Final Report. FHWA/CA/TL-95/23.
- . 2008, October. *Scenic Highway Guidelines*. Landscape Architecture Program, Division of Design.
- . 2009, November. Technical Noise Supplement.
- . 2013, September. Technical Noise Supplement: A Technical Supplement to the Traffic Noise Analysis Protocol. Sacramento, CA.
- . 2020, April. Transportation and Construction Vibration Guidance Manual.

## 13. Bibliography

- . 2023, April 19 (accessed). California State Scenic Highway System. <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>.
- California Department of Water Resources (DWR). June 13, 2017. Water Budget Workbook for New and Rehabilitated Residential Landscapes.
- . 2023, February 25 (accessed). SGMA Data Viewer. <https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#boundaries>.
- . 2023, February 25 (accessed). Dam Breach Inundation Map. Web Publisher. [https://fmds.water.ca.gov/webgis/?appid=dam\\_prototype\\_v2](https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2).
- California Energy Commission (CEC). 2006. Our Changing Climate: Assessing the Risks to California. 2006 Biennial Report. CEC-500-2006-077. California Climate Change Center.
- . 2009, May. The Future Is Now: An Update on Climate Change Science, Impacts, and Response Options for California. CEC-500-2008-0077.
- . 2016, December 5. California Energy Demand Updated Forecast, 2017-2027. <https://efiling.energy.ca.gov/getdocument.aspx?tn=214635>.
- . 2017, January. 2016 Appliance Efficiency Regulations. <https://pdf4pro.com/cdn/2016-appliance-efficiency-regulations-5104f7.pdf>.
- . 2018, May 9. Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation. News release. <https://www.energy.ca.gov/news/2018-05/energy-commission-adopts-standards-requiring-solar-systems-new-homes-first>.
- . 2018. 2019 Building Energy and Efficiency Standards Frequently Asked Questions. [https://www.energy.ca.gov/sites/default/files/2020-03/Title\\_24\\_2019\\_Building\\_Standards\\_FAQ\\_ada.pdf](https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf).
- . 2021. May 19. Amendments to the Building Energy Efficiency Standards (2022 Energy Code) Draft Environmental Report. CEC-400-2021-077-D.
- . 2022, January 24 (updated). Electric Utility Service Area California, 2020. <https://cecgis-caenergy.opendata.arcgis.com/documents/CAEnergy::electric-utility-service-areas/explore>.
- . 2022, January 24 (updated). Natural Gas Detailed Utility Service Area California, 2020. <https://cecgis-caenergy.opendata.arcgis.com/documents/natural-gas-utility-service-area-california-2020/explore>.
- . 2022, February 11 (accessed). 2020 Power Content Label: Southern California Edison. <https://www.energy.ca.gov/filebrowser/download/3902>.

## 13. Bibliography

- . 2022. California Retail Fuel Outlet Annual Reporting (CEC-A15) Results. <https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting>.
- . 2022. California Annual Retail Fuel Outlet Report Results (CEC-A15). <https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting>.
- . 2023. California Energy Demand 2021-2035 Baseline Forecast: CED 2021 Baseline Forecast: SCE Mid Demand Case. <https://efiling.energy.ca.gov/GetDocument.aspx?tn=241221>.
- . 2023. California Energy Demand 2021-2035 Baseline Forecast: CED 2021 Baseline Natural Gas Forecast: Mid Demand Case. <https://efiling.energy.ca.gov/GetDocument.aspx?tn=241226>.
- . 2023, May 24 (accessed). Electricity Consumption by Planning Area. <http://www.ecdms.energy.ca.gov/elecbyplan.aspx>.
- . 2023, May 24 (accessed). Gas Consumption by Planning Area. <http://www.ecdms.energy.ca.gov/gasbyplan.aspx>.
- California Geological Survey (CGS). 2002. California Geomorphic Provinces. Note 36. <https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf>.
- . 2003. June. “The Revised 2002 California Probabilistic Seismic Hazard Maps.” <https://www.conservation.ca.gov/cgs/Documents/PSHA/2002%20California%20Hazard%20Maps.pdf>.
- . 2017. Earthquake Zones of Required Investigation. Accessed December 4, 2023. <https://maps.conservation.ca.gov/cgs/eqzapp/app/>.
- . 2018. Earthquake Fault Zones: A Guide for Government Agencies, Property Owners/Developers, and Geoscience Practitioners for Assessing Fault Rupture Hazards in California. Special Publication 42. [https://www.conservation.ca.gov/cgs/documents/publications/special-publications/SP\\_042.pdf](https://www.conservation.ca.gov/cgs/documents/publications/special-publications/SP_042.pdf).
- . 2023, January 3. California Non-Fuel Mineral Production 2020. <https://www.conservation.ca.gov/cgs/documents/minerals/california-non-fuel-mineral-production-2020-a11y.pdf>.
- . 2023. Data Viewer. Website. <https://maps.conservation.ca.gov/cgs/DataViewer/>.
- California Governor. 2021, July 8. As Drought Conditions Intensify, Governor Newsom Calls on Californians to Take Simple Actions to Conserve Water. <https://www.gov.ca.gov/2021/07/08/as-drought-conditions-intensify-governor-newsom-calls-on-californians-to-take-simple-actions-to-conserve-water/>.
- . 2023, March 24. Governor Newsom Eases Drought Restrictions. <https://www.gov.ca.gov/2023/03/24/governor-newsom-eases-drought-restrictions/>.

## 13. Bibliography

- California Irrigation Management System (CIMIS). 2023, March 30. CIMIS Monthly Report.
- California Natural Resources Agency (CNRA). 2014, July. Safeguarding California: Reducing Climate Risk: An Update to the 2009 California Climate Adaptation Strategy. [https://resources.ca.gov/CNRALegacyFiles/docs/climate/Final\\_Safeguarding\\_CA\\_Plan\\_July\\_31\\_2014.pdf](https://resources.ca.gov/CNRALegacyFiles/docs/climate/Final_Safeguarding_CA_Plan_July_31_2014.pdf).
- . 2019, January 16. California's Fourth Climate Change Assessment: Statewide Summary Report. [https://www.energy.ca.gov/sites/default/files/2019-11/Statewide\\_Reports-SUM-CCCA4-2018-013\\_Statewide\\_Summary\\_Report\\_ADA.pdf](https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf).
- California Office of Environmental Health Hazard Assessment (OEHHA). 2021, October. CalEnviroScreen. <https://oehha.ca.gov/media/downloads/calenviroscreen/report/calenviroscreen40reportf2021.pdf>.
- California Public Utilities Commission (CPUC). 2024, January 17 (accessed). Energy Storage. <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/energy-storage>.
- CBRE. 2023. Ongoing Negative Economic Pressure Weakens GLA Office Fundamentals. <https://mktgdocs.cbre.com/2299/499612d8-ccac-4121-a542-542cdc022b7e-2247583203.pdf>.
- Concord Group, The. 2022, June. Market Analysis for Retail, Hotel and Industrial Uses in Irwindale, CA (Irwindale Gateway). Prepared for Kearny Real Estate Company. Appendix N.
- Conservation Biology Institute (CBI). 2023, July 31 (accessed). Habitat Conservation Plan (HCP), California. <https://databasin.org/datasets/c116dd0d32df408cb44ece185d98731c/>.
- Consolidated Edison and New York State Energy Research and Development Authority (Consolidated Edison). 2017, February 9. *Considerations for ESS Fire Safety*. Prepared by DNV GL.
- County of Los Angeles Enterprise GIS. 2022, December 20. Significant Ecological Area (SEA). <https://egis-lacounty.hub.arcgis.com/datasets/lacounty::significant-ecological-area-sea/explore?location=34.113125%2C-117.973352%2C13.43>.
- Department of Toxic Substances Control (DTSC). 2023. EnviroStor website. Accessed August 7, 2023. <https://www.envirostor.dtsc.ca.gov/public/>.
- Division of Safety of Dams (DSOD). 2022, September. Dams within Jurisdiction of the State of California. <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/All-Programs/Division-of-Safety-of-Dams/Files/Publications/Dams-Within-Jurisdiction-of-the-State-of-California-Listed-Alphabetically-by-Name-September-2022.pdf>.
- Durbin, Ronald M (chief, Forestry Division Prevention Services Bureau ). 2023, May 25. Questionnaire Response. County of Los Angeles Fire Department.
- Environmental and Energy Study Institute (EESI). 2019, February 22. Energy Storage. Fact Sheet. <https://www.eesi.org/papers/view/energy-storage-2019>.

## 13. Bibliography

- Federal Emergency Management Agency (FEMA). September 2020. National Flood Hazard Layer. FIRMette 06037C1700F. <https://msc.fema.gov/portal/firmette?latitude=34.10901800920675&longitude=-117.97513196150544>.
- Federal Highway Administration (FHWA). 1978, December. FHWA Highway Traffic Noise Prediction Model. FHWA-RD-77-108. US Department of Transportation.
- . 2000, April. Highway Traffic Noise in the United States: Problem and Response. US Department of Transportation, p. 3.
- . 2001. Highway Noise Barrier Design Handbook. US Department of Transportation.
- Federal Highway Administration (FHWA), Office of Environment and Planning. 2006, January. FHWA Roadway Construction Noise Model. US Department of Transportation.
- , Office of Environment and Planning, Noise and Air Quality Branch. 2011, December. Highway Traffic Noise Analysis and Abatement Policy and Guidance. US Department of Transportation.
- Federal Interagency Committee on Noise (FICON). 1992, August. Federal Agency Review of Selected Airport Noise Analysis Issues.
- Federal Transit Administration (FTA). 2018, September. Transit Noise and Vibration Impact Assessment Manual. US Department of Transportation.
- Governor's Office of Planning and Research (OPR). 2008, June. CEQA and Climate Change: Addressing Climate Change through CEQA Review. Technical Advisory. <https://opr.ca.gov/docs/june08-ceqa.pdf>.
- Hofford, Christopher (chief). 2023, April 20 and June 27. Questionnaire Response. Irwindale Police Department.
- Intergovernmental Panel on Climate Change (IPCC). 1995. Second Assessment Report: Climate Change 1995.
- . 2001. Third Assessment Report: Climate Change 2001. New York: Cambridge University Press.
- . 2007. Fourth Assessment Report: Climate Change 2007. New York: Cambridge University Press.
- . 2013. Fifth Assessment Report: Climate Change 2013. New York: Cambridge University Press.
- International Energy Agency. 2008. Energy Efficiency Requirements in Building Codes, Energy Efficiency Policies for New Buildings, March. [https://iea.blob.core.windows.net/assets/3783f5e8-b14c-4c18-b04c-aab7c59d6e92/Building\\_Codes.pdf](https://iea.blob.core.windows.net/assets/3783f5e8-b14c-4c18-b04c-aab7c59d6e92/Building_Codes.pdf).

## 13. Bibliography

- Irwindale, City of. 1990, June 28. Reclamation Plan for United Rock Products Corporation Plant Site. Resolution 90-22-1195. <https://www2.irwindaleca.gov/WebLink/DocView.aspx?id=313824&dbid=0&repo=CityofIrwindale>.
- . 2004, August 9. Conditional Use Permit No. 5-04 and Attendant Reclamation Plan for United Rock Products Corporation to Continue Mining Quarry No. 2. Resolution 2004-43-1987. <https://www2.irwindaleca.gov/WebLink/DocView.aspx?id=311924&dbid=0&repo=CityofIrwindale>.
- . 2006, January 3. Excavation/Processing Operation sand Reclamation Plan for Hanson Aggregates Irwindale Plant Ordinance No. 596. <https://www2.irwindaleca.gov/WebLink/DocView.aspx?dbid=0&id=301817&page=10>.
- . 2008, June 11. Durbin Amended Reclamation Plan Ordinance No. 626. Resolution No. 2008-28-2300. <https://www2.irwindaleca.gov/WebLink/DocView.aspx?dbid=0&id=10380&page=8&cr=1>.
- . 2008, June. General Plan Update. <https://www.irwindaleca.gov/DocumentCenter/View/38/General-Plan?bidId=>.
- . 2009, January 14. City of Irwindale Commercial and Industrial Design Guidelines. <https://www.irwindaleca.gov/DocumentCenter/View/39/Commercial-and-Industrial-Design-Guidelines?bidId=>.
- . 2012, November 20. City of Irwindale 2012 Hazard Mitigation Plan. Prepared by Emergency Planning Consultants. <https://www.irwindaleca.gov/DocumentCenter/View/50/Irwindale-Hazmit-Plan-11-20-12---Website?bidId=>.
- . 2018. City of Irwindale Zoning Map (2018). <https://www.irwindaleca.gov/DocumentCenter/View/40/Zoning-Map?bidId=>.
- . 2020. City of Irwindale 2020 General Plan Update. <https://www.irwindaleca.gov/DocumentCenter/View/38/General-Plan?bidId=>.
- . 2021, January. Active Transportation Plan. <https://www.irwindaleca.gov/DocumentCenter/View/6532/IrwindaleActiveTransportationPlan-012021?bidId=>.
- . 2022. Annual Budget Fiscal Year 2022-2023. <https://www.irwindaleca.gov/Archive/ViewFile/Item/142>.
- . 2023. AB 52 Correspondences with Tribes. (Appendix E).
- Iteris. 2023, May. Irwindale Gateway Traffic Impact Analysis. In DEIR Appendix L2.
- Jennings, C. W., and W. A. Bryant. 2010. Fault Activity Map of California. Map No. 6 of California Geological Data Map Series. Scale. Scale 1:750,000.

## 13. Bibliography

- Kingsbury, Jordan (district manager). 2023, April 26. Email Response. Waste Management Inc., Azusa Land Reclamation.
- Lockhart, Linda (environmental protection specialist II). 2023, May 10. Email Response. Waste Management Inc., El Sobrante Landfill.
- Los Angeles Conservancy (LAC). 2023, August 26 (accessed). Irwindale.  
<https://www.laconservancy.org/save-places/community-preservation/irwindale/>.
- Los Angeles, County of. 1980. County of Los Angeles General Plan. [https://planning.lacounty.gov/wp-content/uploads/2023/05/gp\\_1980\\_general\\_plan.zip](https://planning.lacounty.gov/wp-content/uploads/2023/05/gp_1980_general_plan.zip).
- . 2005, October 12. Policies for Managing Available Sewer Capacity and Sewage Discharge in Excess of Design Capacity. <https://pw.lacounty.gov/ldd/lddservices/sewerAreaStudy/docs/Sewer%20Capacity%20Policy%20Memo%2010-12-05.pdf>.
- . 2015. County of Los Angeles 2035 General Plan.  
<https://file.lacounty.gov/SDSInter/bos/supdocs/92401.pdf>.
- . 2015. Mineral Resources. Figure 9.6 of County of Los Angeles 2035 General Plan.  
[https://case.planning.lacounty.gov/assets/upl/project/gp\\_2035\\_2014-FIG\\_9-6\\_mineral\\_resources.pdf](https://case.planning.lacounty.gov/assets/upl/project/gp_2035_2014-FIG_9-6_mineral_resources.pdf).
- Los Angeles County Department of Parks and Recreation (LACDPR). 2023, April 13 (accessed). Santa Fe Dam Recreational Area. <https://parks.lacounty.gov/santa-fe-dam-recreational-area/>.
- Los Angeles County Fire District (LACFD). 2020. Los Angeles County Fire District Facilities Master Plan. <https://ceo.lacounty.gov/wp-content/uploads/2021/02/Los-Angeles-County-Fire-District-Facilities-Master-Plan.pdf>.
- Los Angeles County Public Works Department (LACPW). 2008. City of Irwindale Disaster Routes. Accessed August 7, 2023. <https://pw.lacounty.gov/dsg/disasterroutes/map/Irwindale.pdf>.
- . 2023. Estimated Average Daily Sewage Flow for Various Occupancies.  
<https://pw.lacounty.gov/ldd/lddservices/sewerAreaStudy/docs/Estimated%20Average%20Daily%20Sewage%20Flow%20for%20Various%20Occupancies.pdf>.
- Meeka, Darenn (deputy director). 2021, June 8. Telephone Conversation. County of San Bernardino Solid Waste Management Division.
- Morton, D. M., and F. K. Miller. 2003. Preliminary Geologic Map of the San Bernardino 30'30' x 60' Quadrangle, California. Version 1.0. United States Geological Survey Open-File Report 03-293. Scale 1:100,000.
- National Fire Protection Association (NFPA). 2022. Energy Storage Systems (ESS) and Solar Safety. Accessed May 5, 2023. <https://www.nfpa.org/News-and-Research/Resources/Emergency-Responders/High-risk-hazards/Energy-Storage-Systems>.

## 13. Bibliography

- National Highway Traffic Safety Administration (NHTSA). 2021, August 5. USDOT Proposes Improved Fuel Economy Standards for MY 2024-2026 Passenger Cars and Light Trucks. <https://www.nhtsa.gov/press-releases/fuel-economy-standards-2024-2026-proposal>.
- . 2022, April 1. USDOT Announces New Vehicle Fuel Economy Standards for Model year 2024-2026. <https://www.nhtsa.gov/press-releases/usdot-announces-new-vehicle-fuel-economy-standards-model-year-2024-2026>.
- Office of Environmental Engineering (OEE). 1995, September. Use of California Vehicle Noise Reference Energy Mean Emission Levels (Calveno REMELs) in FHWA Highway Traffic Noise Prediction. TAN 95-03. California Department of Transportation Environmental Program.
- Office of Environmental Health Hazard Assessment (OEHHA). 2015, February. Air Toxics Hot Spots Program Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments. [http://oehha.ca.gov/air/hot\\_spots/2015/2015GuidanceManual.pdf](http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf).
- . 2018, May. Indicators of Climate Change in California. <https://oehha.ca.gov/media/downloads/climate-change/report/.2018caindicatorsreportmay2018.pdf>.
- Office of Noise Abatement and Control. 1974, March. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. EPA/ONAC 550/9/74-004. US Environmental Protection Agency.
- . 1981, July (revised). Noise Effects Handbook: A Desk Reference to Health and Welfare Effects of Noise. First published October 1979. EPA 550/9/82/106. US Environmental Protection Agency.
- Office of Planning and Research. 2019. State of California General Plan Guidelines.
- South Coast Air Quality Management District (South Coast AQMD). 1992. Federal Attainment Plan for Carbon Monoxide.
- . 1993. *California Environmental Quality Act Air Quality Handbook*.
- . 2003, August. White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution. <http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf>.
- . 2003, August. “Background.” Appendix A of White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution. <http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf>.
- . 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. <http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf>.

---

## 13. Bibliography

- . 2008, July. Final Localized Significance Threshold Methodology.
- . 2009, November 19. GHG Meeting 14 Main Presentation. Greenhouse Gases (GHG) CEQA Significance Threshold Working Group. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-14/ghg-meeting-14-main-presentation.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-14/ghg-meeting-14-main-presentation.pdf?sfvrsn=2).
- . 2010, September 28. Agenda for Meeting 15. Greenhouse Gases (GHG) CEQA Significance Thresholds Working Group. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-main-presentation.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-main-presentation.pdf?sfvrsn=2).
- . 2010, September 28. Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf).
- . 2011. Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf?sfvrsn=2>.
- . 2012, May 4. Final 2012 Lead State Implementation Plan: Los Angeles County. <http://www3.aqmd.gov/hb/attachments/2011-2015/2012May/2012-May4-030.pdf>.
- . 2013, February. 2012 Final Air Quality Management Plan. <https://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan>.
- . 2014, June. SCAQMD High Cube Warehouse Truck Trip Study: White Paper Summary of Business Survey Results. <http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/business-survey-summary.pdf>.
- . 2015. *Health Effects of Air Pollution*. <http://www.aqmd.gov/docs/default-source/publications/brochures/the-health-effects-of-air-pollution-brochure.pdf>.
- . 2015, October. “Blueprint for Clean Air: 2016 AQMP White Paper.” 2016 AQMP White Papers Web Page. <https://www.aqmd.gov/docs/default-source/Agendas/aqmp/white-paper-working-groups/wp-blueprint-final.pdf?sfvrsn=2>.
- . 2020, October. Facility Prioritization Procedure for the Rule 1402 Implementation of the AB 2588 Program.
- . 2021, October. Draft Final 2021 Redesignation Request and Maintenance Plan for the 2006 and 1997 24-Hour PM<sub>2.5</sub> Standards for South Coast Air Basin. <https://ww2.arb.ca.gov/sites/default/files/2021-10/draft-final-pm2-5-redesignation-request-and-maintenance-plan.pdf>.

## 13. Bibliography

- . 2021, August. MATES V: Multiple Air Toxics Exposure Study in the South Coast AQMD. <http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v>.
- . 2021, June., Rule 2305: Warehouse Indirect Source Rule: Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program and Rule 316: Fees for Rule 2305. WAIRE Implementation Guidelines. <http://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/waire-implementation-guidelines.pdf?sfvrsn=12>.
- . 2022, December. 2022 Air Quality Management Plan. <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=10>.
- . 2023, March (revised). South Coast AQMD Air Quality Significance Thresholds. <https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25>.
- . 2023, May (accessed). Residential Air Toxics Cancer Risk Calculated from Model data. [https://experience.arcgis.com/experience/79d3b6304912414bb21ebdde80100b23/page/home/?data\\_id=dataSource\\_105-a5ba9580e3aa43508a793fac819a5a4d%3A259&views=Cancer-Risk%2CNavigate-the-map](https://experience.arcgis.com/experience/79d3b6304912414bb21ebdde80100b23/page/home/?data_id=dataSource_105-a5ba9580e3aa43508a793fac819a5a4d%3A259&views=Cancer-Risk%2CNavigate-the-map).
- Southern California Association of Governments (SCAG). 2020, September 3. Connect SoCal. [https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plan\\_0.pdf?1606001176](https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plan_0.pdf?1606001176).
- . 2023, October 19 (accessed). 2016-2040 RTP/SCS Final Growth Forecast by Jurisdiction. [https://scag.ca.gov/sites/main/files/file-attachments/2016\\_2040rtpscs\\_finalgrowthforecastbyjurisdiction.pdf?1605576071](https://scag.ca.gov/sites/main/files/file-attachments/2016_2040rtpscs_finalgrowthforecastbyjurisdiction.pdf?1605576071).
- Southern California Edison (SCE). 2020. 2020 Sustainability Report. <https://www.edison.com/content/dam/eix/documents/sustainability/eix-2020-sustainability-report.pdf>.
- . 2021. Power Content Label: 2021. <https://www.sce.com/sites/default/files/custom-files/Web%20files/2021%20Power%20Content%20Label.pdf>.
- State Mining and Geology Board (SMGB). 2014, April. SMGB Designation Report No. 12: Updated Designation of Regionally Significant Aggregate Resources in the San Gabriel Valley Production-Consumption Region, Los Angeles County. [https://www.conservation.ca.gov/smgbr/reports/Documents/Designation\\_Reports/Designation-Report-12-San-Gabriel.pdf](https://www.conservation.ca.gov/smgbr/reports/Documents/Designation_Reports/Designation-Report-12-San-Gabriel.pdf).
- State Water Resources Control Board (SWRCB). 2022. 2020-2022 Integrated Report for Clean Water Act 303(d) List and 305(b) Report. [https://www.waterboards.ca.gov/water\\_issues/programs/tmdl/2020\\_2022state\\_ir\\_reports\\_revised\\_final/apx-a-303d-list.xlsx](https://www.waterboards.ca.gov/water_issues/programs/tmdl/2020_2022state_ir_reports_revised_final/apx-a-303d-list.xlsx).
- Stetson Engineers Inc. (Stetson). 2023, March. Water Supply Assessment, Irwindale Gateway Project, Irwindale, California. (Appendix M3)

## 13. Bibliography

- Tesla. 2019, September. Tesla Megapack Site Design Manual.
- US Army Corps of Engineers (USACE). 2023, February 25 (accessed). Santa Fe Dam. <https://www.spl.usace.army.mil/Missions/Asset-Management/Santa-Fe-Dam/>.
- US Census Bureau. 2023, October 19 (accessed). LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2002-2020). OnTheMap application.
- US Energy Information Administration (USEIA). 2020a. Table F33: Total Energy Consumption, Price, and Expenditure Estimates. [https://www.eia.gov/state/seds/sep\\_fuel/html/pdf/fuel\\_te.pdf](https://www.eia.gov/state/seds/sep_fuel/html/pdf/fuel_te.pdf).
- . 2020b. Table F16: Total Petroleum Consumption Estimates. [https://www.eia.gov/state/seds/sep\\_fuel/html/pdf/fuel\\_te.pdf](https://www.eia.gov/state/seds/sep_fuel/html/pdf/fuel_te.pdf).
- US Environmental Protection Agency (US EPA). 2002, May. Health Assessment Document for Diesel Engine Exhaust. EPA/600/8-90/057F. Prepared by the National Center for Environmental Assessment, Washington, DC, for the Office of Transportation and Air Quality.
- . 2009, December. EPA: Greenhouse Gases Threaten Public Health and the Environment: Science overwhelmingly shows greenhouse gas concentrations at unprecedented levels due to human activity. [https://archive.epa.gov/epapages/newsroom\\_archive/newsreleases/08d11a451131bca585257685005bf252.html](https://archive.epa.gov/epapages/newsroom_archive/newsreleases/08d11a451131bca585257685005bf252.html).
- . 2022, February 11 (accessed). Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act. <https://www.epa.gov/climate-change/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a>.
- . 2022, February 14 (accessed). Summary of the Energy Independence and Security Act Public Law 110-140 (2007). <https://www.epa.gov/laws-regulations/summary-energy-independence-and-security-act>.
- . 2023. Air Pollutant Emissions Trends Data. <https://www.epa.gov/air-emissions-inventories/air-pollutant-emissions-trends-data>.
- . 2023, January 20 (accessed). Criteria Air Pollutants. <https://www.epa.gov/criteria-air-pollutants>.
- . 2023. EJScreen website. Accessed August 7, 2023. <https://ejscreen.epa.gov/mapper/>
- . 2023. EnviroMapper website. Accessed August 7, 2023. <https://geopub.epa.gov/myem/efmap/index.html>.
- US Fish and Wildlife Service (USFWS). 2023, July 31 (accessed). Wetlands Mapper. <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>.
- US Geological Survey (USGS). 2015. Baldwin Park, California Quadrangle. Map. 7.5' Topographic Series. Scale 1:24,000.

## 13. Bibliography

US Green Building Council (USGBC). 2008. Building Area per Employee by Business Type.

Valley County Water District. 2021, June. 2020 Urban Water Management Plan.

<https://www.vcwd.org/DocumentCenter/View/505/2020-Urban-Water-Management-Plan-PDF>.

Western Regional Climate Center (WRCC). 2023, March 21 (accessed). San Gabriel Canyon, California ([Station ID] 047776). Period of Record Monthly Climate Summary, 01/01/1917 to 06/02/2016. In Western US Climate Summaries. <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7776>.

Wilson-Olgin, Erinn (environmental program manager). 2023, March 8. Letter response to the notice of preparation. South Coast Region, California Department of Fish and Wildlife. See Appendix A2.

Yerkes, R. F., T. H. McCulloch, J. E. Schoellhamer, and J. G. Vedder. 1965. "Geology of the Los Angeles Basin, California: An Introduction." Professional Paper 420-A. United States Geological Survey.





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