

**DRAFT
PROGRAM ENVIRONMENTAL IMPACT REPORT
(VOLUME 1)**

**FOR THE
AIRPORT GATEWAY SPECIFIC PLAN**

Prepared for:

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LIST OF ABBREVIATIONS AND ACROYNMS

AAQS	Ambient Air Quality Standards
AASHTO	American Association of State Highway and Transportation Officials
AB	Assembly Bill
AF	acre-feet
AFD	acre-feet per day
AFY or afy	acre-feet per year
ADT	Average Daily Traffic
AGSP	Airport Gateway Specific Plan
ALUC	Airport Land Use Commission
amsl	above mean sea level
APE	Area of Potential Effect
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
ASR	Aquifer Storage and Recovery
Basin Plan	Santa Ana River Basin
BMPs	Best Management Practices
BNSF	BNSF Railway
BRA / JD	Biological Resources Assessment / Jurisdictional Delineation
BTU	British Thermal Units
BUOW	burrowing owl
CAA	Clean Air Act
CAAQS	Clean Air Act Quality Standards
CAAWS	California Ambient Air Quality Standards
CadnaA	Computer Aided Noise Abatement
CAGN	California gnatcatcher
CalARP	California Accidental Release Prevention Program
CalEEMod	California Emissions Estimator Model
CALFIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CBSC	California Building Standards Code
CCAA	California Clean Air Act
CCR	California Code of Regulation
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CERT	Community Emergency Response Team
CESA	California Environmental Site Assessment
CFR	Code of Federal Regulation

CGS	California Geologic Survey
CHBC	California Historic Building Code
CHL	California Historic Landmarks
CHP	California Highway Patrol
CIP	Capital Improvement Project
CIWMA	California Integrated Waste Management Act
CMP	Congestion Management Plan
CNDDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNG	Compressed Natural Gas
CNPS	California Native Plant Society
CPUC	California Public Utility Commission
CSDP	Comprehensive Storm Drain Plan
CSSC	California Species of Special Concern
CTCs	County Transportation Commissions
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DEIR	Draft Environmental Impact Report
DIF	Development Impact Fees
DMG	Division of Mines and Geology
DMV	Department of Motor Vehicles
DOD	Department of Defense
DOGGR	Division of Oil, Gas and Geothermal Resources
DOT	Department of Transportation
DTSC	Department of Toxic Substance Control
EIA	Energy Information Administration
EIR	Environmental Impact Report
EMFAC	EMissions FACtor model
EMS	Emergency Medical Services
EOC	Emergency Operation Center
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
EV	Electric Vehicle
EVWD	East Valley Water District
FAR	Floor Area Ratio
FBFMs	Flood Boundary and Floodway Maps
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Agency
FESA	Federal Environmental Site Assessment
FHBMs	Flood Hazard Boundary Maps
FHSZ	Fire Hazard Severity Zones

FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
FUDS	Formerly Used Defense Sites
GEIMS	Geographic Environmental Information Management System
GHG	Greenhouse Gas
GP	General Plan
GPU	General Plan Update
HCD	Housing and Community Development
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HMBEP	Hazardous Materials BEP
HMP	Hazardous Materials Disclosure
HRA	Health Risk Assessment
HSAS	Homeland Security Advisory System
HSC	Health and Safety Code
HUD	Department of Housing and Urban Development
HWMP	Hazardous Waste Management Plan
ICC	International Code Council
ICEs	Internal Combustion Engines
ICU	Intersection Capacity Utilization
IPaC	Information Planning and Consultation System
IRP	Integrated Water Resources Plan
ISO	Insurance Service Office
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
ITIP	Interregional Transportation Improvement Program
ITP	Incidental Take Permit
IVDA	Inland Valley Development Agency
JPA	Joint Powers Agreement
LDA	Light-Duty-Auto
LDT	Light-Duty-Trucks
LEED	Leadership in Energy and Environmental Design
LEQ	Equivalent Energy Level
LID	Low Impact Development
LOS	Level of Service
LRA	Local Responsibility Area
LSA	Lake and Streambed Alternation Program
LUST	Leading Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MCLs	maximum contaminant levels
MCY	Motorcycles
MDD	maximum day demand
MDV	Medium-Duty-Vehicles

MPO	Metropolitan Planning Organization
MRZ	Mineral Resources Zone
MWh	megawatt hours
MZC	Municipal Zoning Code
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEHRP	National Earthquake Hazard Reduction Program
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NOP	Notice of Preparation
NPA	No Project Alternative
NPDES	National Pollution Discharged Elimination System
NPL	National Priorities List
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NZE	Near-Zero Emissions
OEHHA	Office of Environmental Health Hazard Assessment
OES	Office of Emergency Services
OHP	Office of Historic Preservation
OHWM	Ordinary High-Water Mark
OMR	Office of Mine Reclamation
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Administration
OSR	Open Space Reserve
PCEJ	Peoples Collective for Environmental Justice
PCR	Public Resources Code
PEIR	Program Environmental Impact Report
PHI	Points of Historic Interests
PHMSA	Pipeline and Hazardous Materials Safety Administration
POTW	Publicly-Owned Treatment Works
PM ₁₀	particulate matter less than 10 microns
PM _{2.5}	particulate matter less than 2.5 microns
PPV	peak particle velocity
PS&E	Plan, Specification and Estimate
RAFSS	Riversidean alluvial fan sage scrub
RCP	Regional Comprehensive Plan
RCRA	Resource Conservation and Recovery Act
RHNA	Regional Housing Needs Assessment
RMS	root mean square
RNG	Residential Natural Gas
ROG	Reactive Organic Gases
ROW	Right-of-Way

RPS	California's Renewable Portfolio Standard
RPSS	Renewable Portfolio Standards
RTA	Riverside Transit Agency
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan / Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SANBAG	San Bernardino Associated Governments
SAR	Santa Ana River
SARA	Superfund Amendments and Reauthorization Act
SARWM	Santa Ana River Watermaster
SB	Senate Bill
SBCFCD	San Bernardino County Flood Control District
SBCFD	San Bernardino County Fire Department
SBCM	San Bernardino County Museum
SBCSD	San Bernardino County Sheriff's Department
SBCSS	San Bernardino County Superintendent of Schools
SBCTA	San Bernardino County Transit Authority
SBIA	San Bernardino International Airport
SCAB	South Coast Air Basin
SBKR	San Bernardino kangaroo rat
SBMWD	San Bernardino Municipal Water Department
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCH	State Clearinghouse
SCS	Sustainable Communities Strategy
SDWA	Safe Drinking Water Act
SEMS	Standardized Emergency Management System
SFHA	Special Flood Hazard Area
SGMA	Sustainable Groundwater Management Act
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SMARA	State Mining and Reclamation Act
SMGB	State Mining and Geology Board
SNRC	Sterling Natural Resource Center
SoCalGas	Southern California Gas
SR	State Route
SRA	Source Receptor Area
SRA	State Responsibility Area
SSC	Species of Special Concern
SSMP	Sewer System Master Plan
STF	State Transportation Facilities
STIP	State Transportation Improvement Programs

SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	Toxic Air Contaminants
TAP	Transportation Assembly Points
TCMs	Transportation Control Measures
TCR	Tribal Cultural Resources
TDA	Tom Dodson & Associates
TDM	Transportation Demand Measures
TDS	total dissolved solids
TEA-Z	The Transportation Equity Act for the 21st Century
TIN	total inorganic nitrogen
TIS	Traffic Impact Study
TNM	Traffic Noise Model
TOC	total organic carbon
TOD	Transit-Oriented Development
TSDF	treatment, storage and disposal facilities
TSS	total suspended solids
TSSP	Traffic Signal Synchronization Program
UBC	Uniform Building Code
USACOE	(USACE) U.S. Army Corps of Engineers
USBR	U.S. Bureau of Reclamation
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USGBC	U.S. Green Building Council
UNFCCC	U.N. Framework Convention on Climate Change
UST	Underground Storage Tank
UTR	utility tractors
UWMP	Urban Water Management Plan
VCP	vitrified clay pipe
VdB	vibration decibel
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
VVTA	Victor Valley Transit Agency
WAIRE	Warehouse Actions and Investments to Reduce Emissions Program
WDR	Waste Discharge Requirements
WQMP	Water Quality Management Plan
WSMP	Water Supply Master Plan
WRF	Water Reclamation Facilities
WSA	Water Supply Assessment
WSMP	Water Supply Master Plan
ZE	Zero Emission

CHAPTER 1 – EXECUTIVE SUMMARY

This Executive Summary for the Airport Gateway Specific Plan (AGSP) Draft Program Environmental Impact Report (DPEIR) evaluated all potential environmental impacts of implementing the AGSP and provides focused summaries of these potential significant environmental effects, including potential significant adverse environmental impacts, that are forecast to occur from implementation of the proposed Project. It also contains a summary of the Project background, Project objectives, and Project description based on the Draft AGSP document provided in Appendix 8.4 of Volume 1. A table summarizing environmental impacts, mitigation measures, and mitigation responsibility is included at the end of this Executive Summary (Table 1.5-1).

1.1 BACKGROUND

The Inland Valley Development Agency (IVDA or Agency) is a joint powers agency in the west San Bernardino Valley that was created to facilitate redevelopment of the former Norton Air Force Base and the surrounding area in the early 1990s. The Airport Gateway Specific Plan (AGSP) represents a long-range plan for the development of the area immediately north of the Airport that functions as the front door to the San Bernardino International Airport (SBIA or Airport), and when adopted will guide all future development proposals and other improvements in the Specific Plan area. This is particularly important because the Specific Plan must be implemented consistently across jurisdictional lines by two separate cities for it to be successful. After conferring, a group of local agencies and stakeholders agreed that the IVDA should assume the lead in managing the preparation of the AGSP and the environmental documentation required to comply with the California Environmental Quality Act (CEQA) for this project. The other participating agencies/entities in developing the AGSP include the City of Highland, City of San Bernardino, the San Manuel Band of Mission Indians, and the East Valley Water District (cooperating agencies). These stakeholders have jurisdictional and ownership interests in the plan area and have invested significant time and resources in supporting the IVDA in completing the AGSP for the benefit of their respective communities.

Although the Specific Plan includes an 9.2-acre site within the SBIA, the vast majority of the Plan area serves as the front door to the Airport (mostly private land) and this interface strongly influences the type of uses incorporated in the Land Use Plan, and how those uses may impact the functionality of the 3rd, 5th and 6th Street corridors, and adjacent distribution facilities located directly southwest of the Plan area. Well-known retailers, such as Mattel, Stater Bros., Amazon, and Kohl's each operate distribution facilities exceeding one million square feet in the general area and are examples of thriving large-scale local industrial development that has evolved in the last 20 years to the south of the proposed AGSP.

The AGSP represents a long-range plan for the development of the planning area, and when adopted will guide all future development proposals and other improvements in the Specific Plan area. Refer to Figures 3-2 through 3-4. The approximately 678-acre AGSP Plan area is located immediately north of the SBIA and the Plan area extends to the north side of 6th Street except at the southwest and southeast corners of Del Rosa Drive and 6th Street where the plan extends to the north side of 5th Street. The western boundary extends to the center line of Tippecanoe Avenue and Plan area is bounded by the SR-210 to the east. The Specific Plan area includes parcels in both the City of Highland (about 485 acres) and the City of San Bernardino (about 193 acres), as shown on Figure 3-2, Local Vicinity Map.

Realizing that a significant transition in the area could not occur one project at a time, a primary goal of the group discussions held was to facilitate and encourage a potential economic development opportunity that could be beneficial to both cities, the Airport, and existing property owners interested in transformation of the area. Collectively, the participants determined that the project area would benefit from the preparation and implementation of the AGSP.

After extensive discussions among the AGSP participants, a decision was made to establish “Mixed Use Business Park” as the only future human-occupied land use within the planning area. A total of 468.29 acres of the planning area (approximately 468 acres used in future reference) are designated as Mixed Use Business Park. The specific uses allowed in the AGSP are identified in detail in the Specific Plan document provided as Appendix 8.4 in Volume 1 of the Draft PEIR. The only other designations in the AGSP planning area are ROW (141.05 acres) and Floodway (68.8 acres). A total of about 9,271,255.45 square feet (SF) (henceforth rounded to 9,271,256 SF) of non-residential development could be realized under the AGSP, and up to 75,000 SF of hotel (an estimated 150 rooms) could be constructed. This mix of uses is forecast to generate up to 5,097 new jobs within the AGSP.

IVDA has prepared this Program DEIR for the Airport Gateway Specific Plan that evaluates the potential environmental impacts that would result from constructing and implementing the AGSP. The focus of the analysis, in accordance with Section 15146 of the State CEQA Guidelines, addresses the specific effects of the Project Description as presented in Chapter 3, Project Description. However, it is the combination of authorizations and entitlements requested for this Project that must be authorized and recommended by IVDA, and ultimately adoption by the Cities of Highland and San Bernardino, to allow the Specific Plan to be implemented.

1.2 INTENDED USE OF THIS ENVIRONMENTAL IMPACT REPORT

This Program DEIR has been prepared in accordance with the CEQA Statutes and Guidelines, 2022, pursuant to Section 21151 of the CEQA statute. The IVDA is the Lead Agency for the Project and has supervised the preparation of this DEIR. The other participating agencies/entities in developing the AGSP include the City of Highland, City of San Bernardino, the San Manuel Band of Mission Indians, and the East Valley Water District (cooperating agencies). This DEIR is an information document which will inform public agency decision makers and the general public of the potential environmental effects, including any significant impacts that may be caused by implementing the proposed Project. Possible ways to minimize significant effects of the proposed Project and reasonable alternatives to the Project are also identified in this Program DEIR.

This document broadly assesses the impacts, including unavoidable adverse impacts and cumulative impacts, related to the construction and operation of the proposed Project. This Program DEIR is also intended to support the permitting process of all agencies from which discretionary approvals must be obtained for particular elements of this Project, such as modifications to the City Creek Bypass channel at the southern end of the planning area. Other California agency approvals (if required) for which this environmental document may be utilized include:

Aesthetics: Local jurisdictions (City of San Bernardino and City of Highland)

Air Quality: South Coast Air Quality Management District

Biology: The U.S. Fish and Wildlife Service (USFWS) and/or California Department of Fish and Wildlife (CDFW). The United States Army Corps of Engineers (USACE), CDFW and Santa Ana Regional Water Quality Control Board (RWQCB) may need to participate in review of discharge of fill into or alteration of a streambed for future projects under the AGSP, particularly modifications to City Creek Bypass channel.

Hazards &
Hazardous
Waste:

San Bernardino County Fire Department and Department of Toxic Substances Control may be involved should for future projects that would store and use hazardous materials or that would be located on a site contaminated by hazardous materials.

Hydrology &
Water Quality:

The RWQCB will issue, authorize or oversee Waste Discharge Requirements (WDR), Water Quality Management Plans (WQMPs) and Stormwater Pollution Prevention Plans (SWPPP) for future projects under the AGSP where applicable. To construct future projects under the AGSP (one acre or larger) a Notice of Intent must be submitted to the State Water Resources Control Board for a General Construction Permit, which is then enforced by the RWQCB. Finally, if any flood hazard areas are affected by future projects under the AGSP, San Bernardino County Flood Control, and FEMA may perform reviews of such projects.

Land Use &
Planning:

Cities of San Bernardino and Highland, and additionally the nearby Cities of Redlands and Loma Linda may be impacted by the implementation of the General Plan through growth resulting from land use designation changes. Additionally, the Southern California Association of Governments (SCAG) is involved in regional planning, and as such will require review of the project to ensure consistency with their regional planning documents. San Bernardino County Fire Department and CalFire would require a review of future projects under the AGSP to ensure concurrence with Fire Codes for specific projects.

Population /
Housing:

SCAG is involved in regional planning, and as such will require review of the project to ensure consistency with the SCAG Regional Housing Needs Assessment.

Transportation:

The Cities of San Bernardino and Highland, and additionally the nearby Cities of Redlands and Loma Linda roadways may be impacted by future growth resulting from implementation of the AGSP. SCAG is involved in regional planning, and as such will require review of the project to ensure consistency with the SCAG Regional Transportation Plan.

No other reviewing or permitting agencies have been identified.

1.3 PROJECT OBJECTIVES

The following objectives have been established for the proposed project and will aid decision makers in their review of the project, its associated environmental impacts, and the proposed alternatives to the project:

- **Economic Opportunities:** Attract innovative and job-generating businesses that deliver an array of job types (diversity of qualifications, wages and salaries) near the area's residential communities and that can respond to changing demand and market conditions in the future.
- **Infrastructure:** Provide comprehensive infrastructure improvements for water, sewer, circulation system, and stormwater drainage that resolve longstanding flooding and hydrology issues and that are adequately financed to meet future system needs.
- **Distinctive Design and Appearance:** Gateways, corridors and buildings within the Airport Gateway Specific Plan are anticipated to feature landmark design elements, create a memorable visitor experience, and provide a unified sense of identity. Building and roadway treatments in this area command the same level of investment and quality of design as achieved under the adjacent Alliance Specific Plan.
- **Streetscape Improvements:** Consistent roadway design and improvements, including landscape, monumentation and an integrated, seamless approach to ongoing maintenance across jurisdictional boundaries.
- **Mobility:** Efficiently connect new industrial, office and existing distribution uses to freeway access while providing safe spaces for pedestrians, cyclists, transit, and motor vehicles along 3rd, 5th and 6th Streets and gateway nodes. Local businesses support and incentivize bike, car ride-share programs, and other alternative modes of transportation, to further support efforts to reduce vehicle miles travelled and greenhouse gas emissions in the region.
- **Integrated Planning:** Collaboration between agencies and property owners occurs on a regular basis to identify catalyst sites to initiate new businesses, to encourage innovative development, and to develop joint solutions to issues that arise within the project area.

Overall, the purpose of developing a specific plan for the Airport Gateway Area is to align local and regional development objectives and implementation efforts for future land use, mobility, and economic development efforts in the multi-jurisdictional plan area.

The primary goal of the AGSP is to implement a collaborative effort, intended to provide a regulatory framework for the plan area that includes a comprehensive theme for the corridor, to refine land use and development codes, provide efficient and effective access to freeway corridors, improve infrastructure and drainage, and develop streetscape and design standards that support opportunities for transition and change within the planning area.

1.4 PROJECT APPROVALS

This Program DEIR for the AGSP will be used as the information source and CEQA compliance document for the following discretionary actions or approvals by the CEQA lead agency, the Inland Valley Development Agency. CEQA requires that the IVDA, the CEQA Lead Agency, to consider the environmental information in the project record, including this Program DEIR, prior to making a decision regarding whether or not to approve and recommend implementation of the proposed Airport Gateway Specific Plan by the Cities of San Bernardino and Highland. The

decision that will be considered by the IVDA is whether to recommend approval of the AGSP as defined in Chapter 3 of this document and discussed above under Section 1.1. Alternatively, the IVDA can reject the project as proposed. This Program DEIR evaluates the environmental effects as outlined above.

The IVDA will serve as the CEQA Lead Agency pursuant to the State CEQA Guidelines Section 15015(b)(1). This Specific Plan DEIR has been prepared by Tom Dodson & Associates (TDA) under contract to and the direction of the IVDA. TDA was retained to assist the IVDA to perform the independent review of the project required by CEQA before the Program DEIR is released. The IVDA has reviewed the content of the Program DEIR and concurs in the conclusions and findings contained herein.

1.5 IMPACTS

The IVDA concluded that an EIR should be prepared to address any potential significant impacts that may result from implementation of the proposed Project. A Specific Plan Program DEIR has been prepared for the proposed AGSP to address all 20 of the topics that make up the current (2022) Appendix G of the CEQA Guidelines.

Based on data and analysis provided in this DEIR, it is concluded the proposed Project will result in significant adverse environmental impacts to Air Quality, Greenhouse Gas, Noise, Transportation, and Utilities and Service Systems. All other potential impacts were determined to be less than significant without mitigation, based primarily on implementation of Specific Plan goals and policies, or can be reduced to a less than significant level with implementation of the mitigation measures identified in the Program DEIR. Note that the cumulative significant impacts are identified in this document based on findings that the Project's contributions to such impacts are considered to be cumulatively considerable which is the threshold identified in Section 15130 of the State CEQA Guidelines. Table 1.5-1 summarizes all of the environmental impacts and proposed mitigation and monitoring measures identified in this Program DEIR and will be provided to the decision-makers prior to finalizing the DEIR.

Subchapter 4.2 Aesthetics: As described in Subchapter 4.2 of this DEIR, implementation of the AGSP was determined to be less than significant through the implementation of mitigation. Mitigation is required to underground utilities, ensure adequate landscaping is provided by future projects under the AGSP, ensure protection of established trees where possible, provide adequate glare prevention, and provide buffer designs to minimize light pollution at sensitive receptors. As a result, there will not be any unavoidable Project specific or cumulative adverse impacts to aesthetics from implementing the Project as proposed.

Subchapter 4.3 Agriculture and Forestry Resources: As described in Subchapter 4.3 of this DEIR, the proposed Project is not forecast to cause any significant adverse impacts to agricultural or forestry resources or resource values. No unavoidable significant impact to agricultural or forestry resources will result from implementing the proposed AGSP.

Subchapter 4.5 Biological Resources: As described in Subchapter 4.5 of this DEIR, due to the lack of significant biological resources within the proposed project area, the Project is not forecast to cause any direct significant unavoidable adverse impact to sensitive biological resources. This is because all potential impacts to biological resources within the Project area would be limited and can be mitigated to a less than significant impact level. Thus, based on the lack of significant onsite biological resources and the mitigation that must be implemented to control potential site

specific impacts on biological resources, the proposed Project is not forecast to cause significant unavoidable adverse impacts to biological resources.

Subchapter 4.6 Cultural Resources: As described in Subchapter 4.6 of this DEIR, potential cultural resource impacts associated with the proposed Project can be mitigated to a less than significant impact level. Implementation of the AGSP may affect historical resources due to the age of the existing structures and known history of the project area. It is possible that some of the buildings within the project area may qualify as significant historical resources, and also possible that subsurface historical resources could be discovered during construction, so mitigation has been identified to address these circumstances. The cultural resources evaluation identified relatively few known prehistoric resource sites within the project area. The accidental exposure of subsurface archaeological resources of significance can be mitigated. Given the above, there will not be any unavoidable Project specific or cumulatively significant adverse impacts to cultural resources from implementing the AGSP as proposed, though mitigation is required minimize such impacts from reaching a level of significant adverse impact.

Subchapter 4.7 Energy: As described in Subchapter 4.7 of this DEIR, AGSP construction and operation activities would not result in inefficient, wasteful or unnecessary consumption of energy and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The AGSP is not anticipated to cause or result in the need for additional energy producing or transmission facilities. Furthermore, the Project would comply with regulations imposed by the federal and state agencies that regulate energy use and consumption through various means and programs. No Energy-specific mitigation measures are required to minimize impacts under this issue primarily because of existing regulations regarding energy conservation and use; however, several air quality mitigation measures would reduce construction and operational energy consumption and impacts thereof, further minimizing impacts under this issue. As such, through implementation mitigation referenced in the Section 4.4 Air Quality, local General Plan policies, State and Federal regulations pertaining to energy conservation, SCE programs, and other existing regulations, the proposed Project's potential energy cumulative and Project-specific impacts can be controlled and will be reduced below a level of significance.

Subchapter 4.8 Geology and Soils: As described in Subchapter 4.8 of this DEIR, potential new development would be located throughout the AGSP project area and would result in a larger number of structures/people potentially exposed to substantial adverse effects associated with severe ground shaking or ground failure. However, impacts related to geologic and seismic hazards associated with the AGSP would be less than significant by adherence to and/or compliance with building codes and standards and the goals and policies of each City's General Plan. Furthermore, mitigation is required to ensure that future development under the AGSP prepare and submit project specific geotechnical reports and adhere to the recommendations thereof; mitigation is also required to ensure water quality is not substantially degraded during construction or occupancy of future projects under the AGSP. With mitigation implementation, no unavoidable significant adverse on-site or off-site geology or soil impacts have been identified.

Subchapter 4.10 Hazards and Hazardous Waste: As described in Subchapter 4.10 of this DEIR, the Project requires mitigation measures to address the following: identification of and adherence to truck routes that connect regional transportation corridors with the project area to minimize interface between mixed-use business park and residential uses; minimize the potential for accidental release of hazardous materials; address the potential for unknown contaminated materials to be exposed during construction and provide protocol for remediation; minimize the potential for uses to be developed near schools that require routine handling of hazardous

materials; and, ensure that infrastructure construction activities in roadways minimize interference with emergency routes and access. Therefore, though there will be some adverse impacts as a result of implementing the Project, specific mitigation measures have been identified to reduce potential Project specific and cumulative (direct and indirect) effects to a less than significant impact level for hazards and hazardous material issues. Thus, the AGSP is not forecast to cause any unavoidable significant adverse hazards or hazardous material impacts.

Subchapter 4.11 Hydrology and Water Quality: As described in Subchapter 4.11 of this DEIR, the proposed Project will make unavoidable alterations in the Planning Area hydrology and the proposed uses have a potential to result in generation of new pollutants from the proposed urban/suburban environment that can degrade water quality. However, the Project requires mitigation measures to address the following: ensure that during construction the SWPPP will be implemented to control any discharges from a site to minimize potential water quality degradation during this stage of development; ensure that the Project-Specific WQMPs will be implemented in a manner comparable to that identified for the watershed; ensure that future projects implemented within the AGSP project area shall submit an Infiltration Feasibility Analysis and a Low Impact Development drainage design to the local jurisdiction; and, ensure that the City Creek By-Pass channel can be re-constructed in a timely manner. Through implementation of mitigation, potential hydrology and water quality impacts can be controlled to a less than significant impact level. The proposed AGSP will not cause unavoidable significant hydrology or water quality impacts.

Subchapter 4.12 Land Use and Planning: As described in Subchapter 4.12 of this DEIR, no significant impacts to land use and planning from implementing the AGSP are anticipated to occur. The Project is located within the Cities of San Bernardino and Highland. The change in character resulting from the AGSP would be consistent with the existing General Plan visions for both the site and the general area, and as such would not physically divide a community. The proposed project is considered consistent with the relevant goals of the SCAG RTP/SCS and each City's General Plan Land Use Element Goals. As such, based on the available data and analysis presented in this DEIR, with implementation of mitigation to establish a relocation program for existing residents of the area, and ensure that a community facilities district is established, impacts would be less than significant. Therefore, the proposed Project will not cause unavoidable significant land use and planning impacts.

Subchapter 4.13 Mineral Resources: As described in Subchapter 4.13 of this DEIR, the project site and surrounding area do not contain any existing mineral development nor any identified potential for mineral resource development. Please note that the southern boundary of the AGSP is 3rd and/or 5th Street and the mineral resource areas south of this border will not be affected by the AGSP. Based on these data, the proposed Project has no potential to cause any unavoidable significant adverse impact to mineral resources or values in the project area.

Subchapter 4.15 Population and Housing: As described in Subchapter 4.15 of this DEIR, the Project is forecast to ultimately employ approximately 5,097 persons, though it is unknown whether the new employees will be drawn from the general area or bring new residents to the Cities of San Bernardino and City of Highland. SCAG forecasts that a 77,901-person gap exists between the 2016 population and the projected build out populations for each City. Also, it is not anticipated that the whole of the number of anticipated employees generated by implementation of the AGSP would be new residents of the Cities of Highland and San Bernardino, particularly given the available labor force/unemployment rate within the Cities of Highland and San Bernardino, the proposed project may induce limited population growth, but the proposed project

will not induce substantial population growth that exceeds either local or regional projections. As stated above under Section 4.12, Land Use and Planning, implementation of the AGSP would result in development that has the potential to displace existing persons and housing within the AGSP Planning Area. Mitigation is required to ensure that a Model/Conceptual Relocation Plan will be implemented to ensure that future developers provide adequate relocation resources to affected persons or households. The provision of adequate resources to facilitate relocation of persons that would be displaced by the AGSP, and the minimization of the potential for circumstances related to insufficient replacement housing through implementation of mitigation would minimize the potential for a significant adverse impact to occur related to the displacement of existing people or housing necessitating replacement housing elsewhere. Based on these data, the proposed project has a less than significant potential to cause any unavoidable significant adverse impacts to population and housing resources in the project area.

Subchapter 4.16 Public Services: As described in described in Subchapter 4.16 of this DEIR, impacts to fire and police protection will be mitigated through the payment of the Development Impact Fees to the City within which development under the AGSP will occur. Furthermore, contribution of both sales taxes and property taxes to the general funds of each City would offset the incremental demand for fire and police protection services. Impacts to schools and other public services will be less than significant with the Project's contribution of property and sales taxes to the general fund and payment of school impact fees. Parks and Recreation are discussed under Subchapter 4.17 of this DEIR. It was determined that the Cities consider impacts to parks from industrial, commercial, and other non-residential projects less than significant through the contribution of property and sales taxes, which in turn contribute to the general funds of the Cities of Highland and San Bernardino commensurate with property value and sales values. However, there is a potential for new residents generated indirectly from implementation of AGSP to create a demand for parks beyond that which is currently provided or identified within either City. Therefore, as there is not currently a funding mechanism to obtain funds from Industrial and Commercial uses within either the City of Highland or City of San Bernardino, mitigation sets forth the framework from which funding for future parks can be obtained from future AGSP projects. Mitigation will preclude the AGSP from creating any unavoidable significant adverse impact to parks and recreation. Thus, the basis for this conclusion is that in addition to mitigation to minimize impacts to parks, adequate funding will be generated to offset Project-related new demand for public services within the Project area.

Subchapter 4.17 Recreation: As described in Subchapter 4.17 of this DEIR, and above under the discussion for Public Services, the Project may indirectly induce population growth that may require new park land and recreation facilities to serve the minor project-related population increase. The project's contribution of taxes to each City's General Fund—which cover development of new parks and recreation facilities within the City—is considered adequate to offset most Project-related new demand for park and recreation facilities within each City. However, there is a potential for new residents generated indirectly from implementation of AGSP to create a demand for parks, and as there is not currently a funding mechanism to obtain funds from Industrial and Commercial uses within either the City of Highland or City of San Bernardino, mitigation sets forth the framework from which funding for future parks can be obtained from future AGSP projects. Based on these findings, the proposed Project would not cause significant unavoidable adverse impacts to the area recreation resources.

Subchapter 4.19 Tribal Cultural Resources: Area tribes were notified of the AGSP and no requests for consultation were submitted. Measures outlined under Cultural Resources include mitigation to protect any potential tribal cultural resources that may exist in the project area from

accidental exposure. Thus, with implementation of mitigation to protect cultural resources, the Project would not cause significant unavoidable adverse impacts to tribal cultural resources.

Subchapter 4.21 Wildfire: As described in Subchapter 4.21 of this DEIR, under the proposed AGSP, due to the location of the AGSP Area being 3 to 5 miles south of the foothills, construction and operation of future projects within the Plan area is well outside of any delineated high fire hazard severity zone. The Wildfire section of this EIR determined that the potential for wildfire to occur within the planning area is low due to the distance of the Planning Area from nearby hills with wildland fire hazards. As such, development under the AGSP would have a minimal potential to experience wildfire hazards, and as such, based on this information, the Project would not cause significant unavoidable adverse impacts under wildfire hazards.

The proposed Project could result in significant impacts to the following environmental issues: Air Quality, Greenhouse Gas, Noise, Transportation, and Utilities and Service Systems, based on the facts, analysis and findings in this Program DEIR.

Subchapter 4.4 Air Quality: As described in Subchapter 4.4, construction of the proposed AGSP would result in NO_x and PM₁₀ emissions that exceed applicable SCAQMD regional air quality thresholds based on additional mitigation. Additionally, even after implementation of the recommended mitigation measures, the Project operational-source emissions would exceed applicable SCAQMD regional thresholds of significance for emissions of NO_x and PM₁₀ when compared to the existing sources of emissions. No other feasible mitigation measures have been identified that would reduce these emissions to levels that are less than significant; however, 40 mitigation measures have been identified to minimize air pollution emissions to the greatest extent feasible. Thus, operational and construction-source air quality impacts are projected to result in an unavoidable significant adverse impact with respect to NO_x and PM₁₀ emissions. Impacts to sensitive receptors would be less than significant and furthermore mitigation shall be implemented to ensure that projects exceeding a specific size prepare project-specific health risk assessments to mitigate for potential impacts thereof. Exceedances of applicable SCAQMD regional thresholds are considered significant and unavoidable, and therefore impacts under this issue are considered significant and unavoidable.

Subchapter 4.9 Greenhouse Gas: As described in Subchapter 4.9, the proposed project will generate approximately 69,512.06 metric tons CO₂e per year in terms of net emissions when compared to the existing emissions in the Planning Area. The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that after implementation of the recommended mitigation measures, which includes a requirement for future AGSP structures to be solar or alternative energy ready, the AGSP would generate emissions beyond the SCAQMD 3,000/10,000 MTCO₂e/yr threshold, and as such, will have a significant and unavoidable adverse impact under Greenhouse Gas. Therefore, the project's GHG emissions are considered to be an unavoidable adverse significant impact. No feasible mitigation measures have been identified that would reduce these emissions to levels that are less than significant. Thus, exceedances of applicable SCAQMD regional thresholds are considered significant and unavoidable, and the AGSP would create a significant cumulative impact to global climate change.

Subchapter 4.14 Noise: As described in Subchapter 4.14, the proposed Project will cause significant off-site transportation noise impacts on the nearest sensitive receptors. Mitigation is available to reduce the offsite traffic noise impact, but it cannot be enforced on private property. Consequently, the Project's traffic noise impacts on the surrounding land uses are significant and unavoidable. Construction noise impacts, operation noise impacts, and vibration noise impacts

are less than significant with the implementation of mitigation to reduce noise generated from these activities to the extent feasible. Therefore, off-site transportation noise level increases at adjacent noise-sensitive residential homes are considered significant and unavoidable, but all other noise impacts are less than significant.

Subchapter 4.18 Transportation: As described in Subchapter 4.18 of the DEIR, the project requires mitigation measures recommended in the Traffic Impact Analysis to minimize impacts to the circulation system from implementing the AGSP. The Project will implement intersection and roadway improvements consistent with City requirements. However, the project's transportation impact based on VMT is potentially significant based on City of San Bernardino and SBCTA recommended thresholds. As the efficacy of TDM measures and reduction of VMT impacts thresholds cannot be assured, the project's VMT impact is therefore considered significant and unavoidable. As such, based on these findings, the proposed Project would cause significant unavoidable adverse impacts to the regional VMT issue.

Subchapter 4.20 Utilities and Service Systems: As described in Subchapter 4.20 of the DEIR, the proposed Project will cause an unavoidable increase in the demand for water, wastewater, recycled water, electric and natural gas utility systems within the Project area. Given that the whole of the AGSP would result in significant impacts, including significant construction and operational air quality and greenhouse gas impacts, development under the AGSP would result in a significant and unavoidable potential to require or result in the relocation or construction of new or expanded stormwater infrastructure, the construction of which would cause a significant impact these various systems are anticipated to accommodate this increased demand with existing facilities without causing an unavoidable significant adverse impact. Furthermore, while mitigation would require the Cities of Highland and San Bernardino and the IVDA to assist the East Valley Water District (EVWD) with selection of reservoir and well sites that do not result in significant adverse impacts, the ultimate locations of these facilities cannot be determined at this time. As such, it is possible the development of such facilities may cause significant unavoidable adverse impacts. Based on the facts and findings presented in the above analysis, the proposed Project will cause unavoidable significant adverse impacts to City and area water, wastewater, and stormwater infrastructure.

Project impacts to landfill capacity from construction and demolition debris were found to be less than significant with the implementation of mitigation to ensure that construction and demolition waste is recycled where feasible. Additionally, solid waste mitigation would minimize the amount of solid waste being hauled on a daily basis in support of individual AGSP projects. With the implementation of the mitigation measures referenced above, AGSP solid waste impacts will remain less than significant. Project impacts related to operational solid waste were also found to be less than significant without mitigation. Based on the facts and findings presented in the above analysis, the proposed Project will not cause unavoidable significant adverse impacts to City and area solid waste management system.

The Executive Summary of potential Project impacts is presented in Table 1.5-1.

1.6 ALTERNATIVES

The California Environmental Quality Act (CEQA) and the State CEQA Guidelines require an evaluation of alternatives to the proposed action. Section 15126 of the State CEQA Guidelines indicates that the "discussion of alternatives shall focus on alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of not significant...." The

State Guidelines also state that “a range of reasonable alternatives to the project....which could feasibly attain the basic objectives of the project” and “The range of alternatives required in an EIR is governed by ‘rule of reason’ that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice.” The detailed analyses of the alternatives evaluated are provided in Chapter 5 of this DEIR. This evaluation addresses those alternatives for feasibility and range of alternatives required to permit decision-makers a reasoned choice between the alternatives. Refer to Table 1.6-1 for a tabular comparison of alternatives (found at end of chapter).

Overall, the purpose of developing a specific plan for the Airport Gateway Planning Area is to align local and regional development objectives and implementation efforts for future land use, mobility, and economic development efforts in the multi-jurisdictional plan area. The primary goal of the AGSP is to implement a collaborative effort, intended to provide a regulatory framework for the plan area that includes a comprehensive theme for the corridor, to refine land use and development codes, provides efficient and effective access to freeway corridors, improves infrastructure and drainage, and develops streetscape and design standards that support opportunities for transition and change within the planning area.

In this instance the DEIR analysis in Chapter 4 has reached a finding that there are five issues with unavoidable significant adverse effects from implementing the Project as proposed in Chapter 3, the Project Description.

One of the alternatives that must be evaluated in an environmental impact report (EIR) is the “No Project Alternative,” regardless of whether it is a feasible alternative to the proposed Project, i.e., would meet the project objectives or requirements.

No Project Alternative (NPA)

Under this alternative, the environmental impacts that would occur if the proposed Project is not approved and implemented are identified. Under this alternative, existing uses, including residential development and commercial uses, would remain in place. The vacant acreage (243 acres) would remain vacant and undeveloped under this alternative and the existing uses would remain as follows on Table 3-1 (extracted from Chapter 3, Project Description).

**Table 3-1
 EXISTING LAND USE ESTIMATES¹
 (EXCLUDING ROW AND FLOODWAY)**

Land Use Classification	TOTAL			CITY OF HIGHLAND			CITY OF SAN BERNARDINO		
	Acres	SF ²	Employment ³	Acres	SF ²	Employment ³	Acres	SF ²	Employment ³
Commercial⁴	19.87	150,647	301	17.31	131,328	262	2.56	19,319	39
Educational Facilities⁵	0.66	3,000	6	0.66	3,000	6	0	0	0
Industrial	75.72	526,915	176	60.11	418,289	140	15.61	108,626	36
Public Facilities	0.94	3,686	4	0.94	3,686	4	0	0	0
Vacant⁶	290.21	N/A	N/A	116.67	N/A	N/A	173.54	N/A	N/A
Residential	127.96	N/A	N/A	100.65	N/A	N/A	3.66	N/A	N/A
Total	515.36⁷	684,248	487	296.34	556,303	412	195.37	127,945	75

Notes

1. The data provided in the above table was derived from the San Bernardino County Parcel Map Viewer (<https://www.arcgis.com/apps/webappviewer/index.html?id=87e70bb9b6994559ba7512792588d57a>) and was cross referenced utilizing both Google Maps/Street View and a survey of the project area. Accessed in 2020 and early 2021.
2. SF = square feet. The non-residential square feet are from the San Bernardino County Parcel Map Viewer (<https://www.arcgis.com/apps/webappviewer/index.html?id=87e70bb9b6994559ba7512792588d57a>). Accessed in 2020 and early 2021.
3. Employment generation rates of 3,000 SF/job for industrial, 1000 SF/job for public facilities and 500 SF/job for Commercial and Educational Facilities were used. If industrial land uses were employee intensive than employment rate would be closer to 2,000 SF/job. If warehouses/distribution are highly automated, the employment rate would be closer to 4,000 SF/job. 3,000 SF/job has been applied as an average.
4. Commercial properties generally consist of strip center commercial, gas station, offices, and hotel uses.
5. Highland Head Start
6. Vacant land includes some acreage that should be dedicated to ROW and floodway because some Assessor Parcel Numbers (APNs) are not broken down to exclude ROW and floodway acreage that may be adjacent to an existing use. As such, the actual vacant land to be developed by the project has been determined to be 243 acres.
7. The total acreage provided includes, as with Vacant land discussed under item "6" above, superfluous acreage that is dedicated to ROW and floodway, and will remain dedicated to ROW and floodway under the propose AGSP. The acreage reflects the best estimate of existing uses as described under item 1, above.

Additionally, the existing residential within the project area are broken down as follows on Table 3-2 (extracted from Chapter 3, Project Description).

**Table 3-2
EXISTING LAND USE ESTIMATES¹
RESIDENTIAL BREAKDOWN**

Residence Type	TOTAL			CITY OF HIGHLAND			CITY OF SAN BERNARDINO		
	Acres	Units ²	Population ³	Acres	Units ²	Population ³	Acres	Units ²	Population ³
Apartment/Condo	14.44	247	803	12.79	241	784	1.65	6	19
Duplex/Triplex/Quadplex	7.72	92	299	7.72	92	299	0	0	0
Mobile Home	1.49	40	130	1.49	40	130	0	0	0
Single Family Detached	104.31	381	1,239	100.65	375	1,220	3.66	6	19
Total	127.96	760	2,471	122.65	748	2,433	5.31	12	38

Notes

1. The data provided in the above table was derived from the San Bernardino County Parcel Map Viewer (<https://www.arcgis.com/apps/webappviewer/index.html?id=87e70bb9b6994559ba7512792588d57a>) and was cross referenced utilizing both Google Maps/Street View and a survey of the project area. Accessed in 2020 and early 2021.
2. The units have been calculated utilizing the San Bernardino County Parcel Map Viewer (<https://www.arcgis.com/apps/webappviewer/index.html?id=87e70bb9b6994559ba7512792588d57a>) and was cross referenced utilizing both Google Maps/Street View and a survey of the project area, as well as verification of units for large apartment buildings utilizing rental websites such as Zillow.com. Websites were accessed in 2020 and early 2021.
3. Existing population numbers are estimates calculated using 3.52 persons per household for both cities and a vacancy rate of 7.6 % for Highland and 9.0% for San Bernardino (DOF, Jan 2017)

This is a true no project alternative, in that it assumes that all of the approximately 243 acres of vacant land remain undeveloped, and the project area does not undergo significant change in land use from that which exists at present.

With respect to the NPA, Project objectives are not attained because no development is included as a part of the NPA. With respect to the significant unavoidable impacts of Project, the NPA would avoid some of the unavoidable significant impacts of the Project, but would have a potential

to result in significant impacts to stormwater where the AGSP would not. No revenues from new development would be generated, thereby minimizing the potential for the IVDA, City of Highland, and City of San Bernardino to revitalize this area. Furthermore, the NPA would not result in redevelopment of this area, as the AGSP results in greater buffers between the Airport, and industrial and business park uses from nearby residences, thereby minimizing future health risk at sensitive receptors from aircraft operations and heavy trucks utilizing area roadways—such as 5th Street, 3rd Street, and Victoria Avenue. Additionally, the NPA would not promote much needed job growth within the area, and would not create economic growth within the Cities of San Bernardino and Highland.

No Project Alternative with Vacant Land Developed under the Existing Land Use Designations

Another alternative is the No Project Alternative with Vacant Land Developed under the Existing Land Use Designations. Under this Alternative, the approximately 243 acres of vacant land would be developed in addition to those uses that exist at present remaining in place. Under this Alternative, the existing conditions outlined above under Tables 3-1 and 3-2 would remain the same. Development that could occur within the planning area is assumed to follow the underlying land use designations for the project area, much of which is developed (existing uses are anticipated to remain as they exist at present under the No Project Alternative), and much of the land that is vacant that could be developed is already designated for Business Park and Industrial Use (refer to the existing land use map provided as Figure 3-4).

**Table 5-1
 VACANT LAND USE, UNDERLYING LAND USE DESIGNATIONS ESTIMATES
 (EXCLUDING ROW AND FLOODWAY)**

Land Use Classification ¹	TOTAL				
	Acres	SF	Employment	Residential Units	Population ⁴
Commercial	81.48	617,748 ⁷	4,530 ¹⁰	-	-
Industrial¹³	61.48	427,820 ⁸	141 ¹¹	-	-
Public Facilities	0.37	1,451 ⁹	2 ¹²	-	-
Single Family Residential	73.91	-	-	270 ²	867 ⁵
Multi-Family Residential	72.97	-	-	1,168 ³	4,584 ⁶
Total	290.21	1,047,019	4,673	1,438	5,451

¹ The total acreage provided includes superfluous acreage that is dedicated to ROW and floodway, and will remain dedicated to ROW and floodway under the propose AGSP. The acreage reflects the best estimate of existing uses.

² 3.65 single family units per acre; based on the existing single family units per acre calculated utilizing data from Table 3-1

³ 16 multi-family units per acre; based on the existing apartment, condo, and duplex/triplex/quadplex, and mobile home units per acre calculated utilizing data from Table 3-1

⁴ Population numbers are estimates calculated using 3.52 persons per household for both cities and a vacancy rate of 7.6 % for Highland and 9.0% for San Bernardino (DOF, Jan 2017)

⁵ Population is calculated utilizing note "4" above and the existing acreages that are vacant within each City; 19.61 acres are located in the City of Highland and 54.36 acres are located in the City of San Bernardino

⁶ Population is calculated utilizing note "4" above and the existing acreages that are vacant within each City; 0.17 acres are located in the City of Highland and 54.36 acres are located in the City of San Bernardino

⁷ 7,581.6 SF per acre Commercial

⁸ 6,958.7 SF per acre Industrial

⁹ 3,921 SF per acre Public Facilities

¹⁰ 55.6 employees per acre Commercial

¹¹ 2.3 employees per acre Industrial

¹² 4.3 employees per acre Public Facilities

¹³ Industrial uses include Business Park uses as well as those designated as Industrial.

The following table combines the existing population and uses outlined in Tables 3-1 and 3-2 above, with the anticipated population based on land use designations of vacant land within the AGSP.

**Table 5-2
 EXISTING PLUS VACANT LAND USE ESTIMATES
 (EXCLUDING ROW AND FLOODWAY)**

Land Use Classification	TOTAL				
	Acres	SF	Employment ³	Units	Population ²
Commercial	101.35	768,395	4,831	-	-
Educational Facilities	0.66	3,000	6	-	-
Industrial	137.2	954,735	317	-	-
Public Facilities	1.31	5,137	6	-	-
Single-Family Residential	178.22	-	-	651	2,106
Multi-Family Residential	96.62	-	-	1,547	5,816
Total	515.36¹	1,731,267	5,160	2,198	7,933

¹ The total acreage provided includes superfluous acreage that is dedicated to ROW and floodway, and will remain dedicated to ROW and floodway under the propose AGSP. The acreage reflects the best estimate of existing uses.

² Population numbers are estimates calculated using 3.52 persons per household for both cities and a vacancy rate of 7.6 % for Highland and 9.0% for San Bernardino (DOF, Jan 2017)

³ Employment generation rates of 3,000 SF/job for industrial, 1000 SF/job for public facilities and 500 SF/job for Commercial and Educational Facilities were used. If industrial land uses were employee intensive than employment rate would be closer to 2,000 SF/job. If warehouses/distribution are highly automated, the employment rate would be closer to 4,000 SF/job. 3,000 SF/job has been applied as an average.

With respect to the NPA2, some of the project objectives are not attained.

- Economic Opportunities: *The NPA2 would result in economic opportunities, so this objective would be met under this alternative.*
- Infrastructure: *The NPA2 would not result in some vital infrastructure projects, such as the City Creek Bypass Channel improvements proposed under the AGSP. However, it is assumed that future development proposals would be required to otherwise improve area infrastructure.*
- Distinctive Design and Appearance: *The NPA2 would not develop a specific plan that would result in a cohesive design with landmark elements similar to other specific plan areas surrounding the Airport. As such, it would not meet this objective.*
- Streetscape Improvements: *Future development under this alternative would include streetscape improvements concurrent with development proposals. The NPA would therefore meet this objective.*
- Mobility: *It is assumed that future development proposals under the NPA2 would be required to otherwise improve area mobility, but as development proposals would be for individual projects, as opposed to the AGSP, which contemplates a specific plan for the entire planning area, the NPA2 would not meet this objective to the same degree as the AGSP.*
- Integrated Planning: *As with Mobility, as development proposals under the NPA2 would be for individual projects, as opposed to the AGSP, which contemplates a specific plan for the entire planning area, the NPA2 would not meet this objective as no planning coordination between the Cities of Highland and San Bernardino, IVDA, or EVWD and San Manuel Band of Mission Indians would be anticipated.*

With respect to the significant unavoidable impacts of Project, the NPA2 would not avoid all of the unavoidable significant impacts that would result under the AGSP. Furthermore, the NPA2 would have a potential to result in significant impacts to stormwater where the AGSP would not. Additionally, the NPA2 would not result in greater buffers between the Airport, and industrial and business park uses from nearby residences, thereby minimizing future health risk at sensitive receptors from heavy trucks utilizing area roadways—such as 5th Street, 3rd Street, and Victoria Avenue. Ultimately, the AGSP and NPA2 would result in similar levels of significance for many issues, though because the NPA2 would only redevelop vacant land, most impacts, even those that are significant and unavoidable, are lesser than those that would occur under the AGSP. The exception—stormwater infrastructure—is discussed in detail above.

Conclusion

The No Project Alternative is the environmentally superior alternative. However, this alternative does not meet the project objectives. Beyond the NPA the NPA2 has been determined to be the environmentally superior alternative among the other alternatives. This is because though long-term impacts under this alternative would be significant, short-term impacts, such as construction related GHG and Air Quality Emissions, would be able to be mitigated to a level of less than significant. Furthermore, overall impacts would be lessened when compared to the AGSP because the existing development would not be replaced and redeveloped with new uses under the NPA2. However, the NPA2 would not eliminate unavoidable significant impacts under any issue—excepting the issue of Noise—for which the AGSP would result in significant impacts, and would result in a significant impact under hydrology because the stormwater infrastructure required to meet new demands on the stormwater collection system would not be installed. The NPA2 would not meet most of the project objectives.

A summary of impacts of the alternatives compared to the Proposed Project is included in Table 1.6-1 below, pursuant to CEQA Guidelines Section 15126.6(d).

1.7 AREAS OF CONTROVERSY

A detailed discussion of all comments received on the project in response to the Notice of Preparation is provided in Chapter 2, Introduction. Based on this input the following issues were identified as being controversial:

1. Transportation: traffic congestion, truck traffic and related diesel emissions in proximity to sensitive receptors was one of the main concerns raised by commenters on the NOP, and that additional traffic generated by the project in this area would contribute to the greater congestion in the project area.
2. AGSP contribution to air and greenhouse gas emissions, and the potential impacts to sensitive receptors in the population.
3. Relocation Plans for residences within the AGSP Planning Area.
4. Environmental Justice.

1.8 SUMMARY OF IMPACTS AND AVOIDANCE, MINIMIZATION AND MITIGATION MEASURES DISCUSSED IN THIS DRAFT EIR

Table 1.5-1 provides a summary of all impacts and mitigation measures identified in the detailed environmental evaluation presented in Chapter 4 of this Program DEIR. This summary is meant to provide a quick reference to proposed Project impacts, but the reader is referenced to Chapter 4 to understand the assumptions, method of impact analysis and rationale for the findings and conclusions presented in Table 1.6-1.

**Table 1.5-1
 SUMMARY OF IMPACTS AND AVOIDANCE, MINIMIZATION AND MITIGATION MEASURES DISCUSSED IN THIS DRAFT EIR**

Environmental Category / Avoidance, Minimization and Mitigation Measures	Responsible Agency
AESTHETICS AES-1: Each new development proposal in the future shall include undergrounding the above ground power lines and removal of power poles adjacent to or required to serve a project site, where required by Municipal regulations.	City of Highland and/or City of San Bernardino
AES-2: Landscaping will be required by each City for future projects developed under the AGSP. Both cities and the AGSP have identified landscape concepts/ elements in the Community Design Elements of their respective General Plans and the AGSP (Chapter 5). The landscape plans for each future development shall be submitted to each City and incorporate these design concepts/elements. The landscape plans shall incorporate the buffer concepts identified in the General Plans and the AGSP to buffer the industrial uses on the south side of 6 th Street from the residential uses on the north side of 6 th Street.	City of Highland and/or City of San Bernardino
AES-3: Where mature tree resources of high aesthetic quality occur on a site, the future developers shall make all reasonable efforts to retain such singular scenic tree resources. Where such resources cannot be protected and retained on a project site, the developer shall provide aesthetic enhancements to the site acceptable to the City to offset the loss of such resources.	City of Highland and/or City of San Bernardino
AES-4: Prior to approval of the Final Design for future site-specific projects, an analysis of potential glare from sunlight or exterior lighting to impact vehicles traveling on adjacent roadways shall be submitted to the City for review and approval. This analysis shall demonstrate that due to building orientation or exterior treatment, no significant glare may be caused that could negatively impact drivers on the local roadways or impact adjacent land uses. If potential glare impacts are identified, the building orientation, use of non-glare reflective materials or other design solutions acceptable to the Cities of Highland and San Bernardino shall be implemented to eliminate glare impacts.	City of Highland and/or City of San Bernardino
AES-5: The new AGSP development along 6 th Street and Tippecanoe Avenue will occur in a transition area between light industrial/business park uses on the one side of the road and residential uses on the other. Both cities require "buffer designs" on 6 th Street to minimize conflicts between land uses. Exterior lighting for AGSP development on 6 th Street shall be designed to minimize conflicts with the residential uses on the north side of this roadway. Lighting plans shall be prepared by future developers that minimize light and glare impacts on adjacent residential properties and they shall be reviewed and approved by the city with jurisdiction as fulfilling the intent and purpose of this measure.	City of Highland and/or City of San Bernardino
Impact Description	Impact After Mitigation
The existing visual setting of the Planning Area will be permanently altered as a result of implementation of the AGSP. The intensification of development greater than that which presently occurs within the AGSP Planning Area will change the visual setting. Given that the specific development proposals within the AGSP are presently unknown, the impacts to visual resources in the area including scenic vistas trees, and from new sources of light and glare were determined to be significant without mitigation. As such, mitigation is required to reduce impacts under this issue.	As described in Subchapter 4.2, all potential aesthetic impacts associated with the AGSP can be mitigated to a less than significant impact level. Mitigation measures would: minimize impacts to scenic vistas through requiring utilities to be undergrounded; requiring landscape plans; minimize impacts to scenic resources such as mature trees through protection in place where possible; minimize light and glare impacts by requiring project specific analyses; and, requiring buffering along 6th street from traffic that might cause glare. As a result, there will not be any unavoidable project specific or cumulative adverse impacts to aesthetics from implementing the project as proposed.

Environmental Category / Avoidance, Minimization and Mitigation Measures		Responsible Agency
AGRICULTURE AND FORESTRY No mitigation measures are required.		—
Impact Description	Impact After Mitigation	
As described in Subchapter 4.3 of this DEIR, the AGSP Planning Area does not contain any agricultural or forestry resources. Thus, the proposed Project is not forecast to cause any significant adverse impacts to agricultural or forestry resources or resource values. No unavoidable significant impact to agricultural or forestry resources will result from implementing the proposed AGSP.	No mitigation is required. Impacts are less than significant.	

Environmental Category / Avoidance, Minimization and Mitigation Measures		Responsible Agency
AIR QUALITY AQ-1: The Construction Contractor shall ensure that off-road diesel construction equipment complies with Environmental Protection Agency (EPA)/California Air Resources Board (CARB) Tier 4 emissions standards or equivalent and shall ensure that all construction equipment is tuned and maintained in accordance with the manufacturer's specifications. This measure will apply to all future projects.		City of Highland and/or City of San Bernardino
AQ-2: Future AGSP Developments shall be required to utilize "Super-Compliant" low VOC paints which have been reformulated to exceed the regulatory VOC limits put forth by SCAQMD's Rule 1113. Super-Compliant low VOC paints shall be no more than 10g/L of VOC. Alternatively, Future AGSP Development may utilize building materials that do not require the use of architectural coatings. This measure will apply to all future projects under the AGSP.		City of Highland and/or City of San Bernardino
AQ-3: Plans, specifications and contract documents shall require that a sign must be posted on-site stating that construction workers shall not allow diesel engines to idle in excess of five minutes.		City of Highland and/or City of San Bernardino
AQ-4: During site preparation and grading activity all actively graded areas within each proposed project site shall be watered at two (2) hour watering intervals (e.g., 4 times per day) or a movable sprinkler system shall be in place.		City of Highland and/or City of San Bernardino
AQ-5: Future AGSP Developments shall be required to install gravel pads at all access points to prevent tracking of mud onto public roads.		City of Highland and/or City of San Bernardino
AQ-6: Future AGSP Developments shall be required to install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (e.g., Install wheel shakers, wheel washers, and limit site access).		City of Highland and/or City of San Bernardino
AQ-7: Future AGSP Developments shall be required to cover all materials transported off- or on- to the site. Materials shall be effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.		City of Highland and/or City of San Bernardino
AQ-8: Future AGSP Developments shall be required to sweep all streets at least once a day using SCAQMD Rule 1186 certified street sweepers if visible soil materials are carried to adjacent streets.		City of Highland and/or City of San Bernardino

Environmental Category / Avoidance, Minimization and Mitigation Measures	Responsible Agency
AQ-9: Future AGSP Developments shall be required to post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action to a complaint within 24 hours.	City of Highland and/or City of San Bernardino
AQ-10: Future AGSP Developments shall be required to formulate a high wind response plan for enhanced dust control if winds are forecast to exceed 15 mph in any upcoming 24-hour period.	City of Highland and/or City of San Bernardino
AQ-11: Future AGSP Developments shall be required to use electric or alternative fueled construction equipment where technically feasible and/or commercially available, where the electric or alternatively fueled equipment can perform adequately when compared to gasoline or diesel fueled equipment.	City of Highland and/or City of San Bernardino
AQ-12: Future AGSP Developments shall be required to use zero emission (ZE) or near-zero emissions (NZE) trucks, if and when feasible; at a minimum, future development shall be required to use 2010 and newer haul trucks (e.g., including material delivery trucks and soil import/export, and trucks required for operation). Once required to comply with State law, or otherwise comply with SCAQMD Rules, ZE and NZE on-road haul trucks shall be mandatory for use by future AGSP Development; until this point, the use of ZE and NZE on-road haul trucks shall be required once such vehicles are readily available, and comparable in cost (within a 20% margin) to non-ZE/NZE on-road haul trucks.	City of Highland and/or City of San Bernardino
AQ-13: During the City's review process for individual project applications within the Specific Plan, the individual projects shall conduct modeling of the regional and the localized emissions (NOx, CO, PM10, and PM2.5) associated with the construction activities estimated for any proposed individual developments one acre or larger. If the modeling shows that emissions would exceed the SCAQMD's significance thresholds for those emissions, applicable mitigation would be required. For implementing projects within each City, the individual projects shall be responsible for submitting a focused project-level air quality assessment that includes the modeling of localized on-site emissions associated with daily grading activities anticipated for the proposed individual projects. A regional and localized emissions analysis will be required for all projects subject to CEQA discretionary actions.	City of Highland and/or City of San Bernardino
AQ-14: During the City's review process for individual project applications within the Specific Plan, the individual projects shall conduct modeling of the regional and the localized emissions (NOx, CO, PM10, and PM2.5) associated with the operational activities estimated for the proposed individual developments one acre or larger. If the modeling shows that emissions would exceed the SCAQMD's significance thresholds for those emissions, applicable mitigation would be required. For implementing projects within each City, the individual projects shall be responsible for submitting a focused project-level air quality assessment that includes the modeling of localized on-site emissions associated with daily grading activities anticipated for the proposed individual projects. A regional and localized emissions analysis will be required for all projects subject to CEQA discretionary actions.	City of Highland and/or City of San Bernardino

Environmental Category / Avoidance, Minimization and Mitigation Measures	Responsible Agency
<p>AQ-15: During each City's review process for individual project applications within the Specific Plan, projects that generate more than 100 diesel truck trips per day or projects that generate other toxic air contaminants (TACs) within a 100-foot buffer of the nearest sensitive receptor, shall submit a health risk assessment (HRA) to the City prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of CEQA and the SCAQMD. If the HRA shows that the incremental cancer risk of an individual Project exceeds 10 in 1 million or the appropriate noncancer hazard index exceeds 1.0, the individual Project's will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Uses that do not generate a significant number of average daily truck trips (less than 100 truck trips), including but not limited to development of hotel uses, and commercial uses supporting the AGSP development such as coffee shops, fast food restaurants, restaurants, etc.) and excluding fueling stations shall be exempt from preparing an HRA.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>AQ-16: Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable 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 (5) minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," or the parking brake is engaged; and 3) telephone numbers of the building facilities manager and the CARB to report violations. Prior to the issuance of an occupancy permit, the Lead Agency shall conduct a site inspection to ensure that the signs are in place.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>AQ-17: Prior to tenant occupancy, the Project Applicant or successor in interest shall provide documentation to the Lead Agency demonstrating that occupants/tenants of the Project site have been provided documentation on funding opportunities, such as the Carl Moyer Program, that provide incentives for using cleaner-than-required engines and equipment.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>AQ-18: The minimum number of automobile electric vehicle (EV) charging stations required by the California Code of Regulations (CCR) Title 24 shall be provided. As agreed to by the Applicant and Lead Agency, final designs of Project buildings shall include electrical infrastructure sufficiently sized to accommodate the potential installation of additional auto and truck EV charging stations.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>AQ-19: As agreed to by the Applicant and Lead Agency, final Project designs shall provide for installation of conduit in tractor trailer parking areas for the purpose of accommodating potential installation of EV truck charging stations.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>AQ-20: Future AGSP Developments shall be required to utilize on-road heavy-duty diesel trucks with a gross vehicle weight rating greater than 14,000 pounds with a 2010 model year engine or newer or to be equipped with a particulate matter trap, as available.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>AQ-21: Future AGSP uses shall be operated in a manner such that no offensive odor is perceptible at or beyond the property line of that use, as determined by SCAQMD.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>AQ-22: Future AGSP Developments shall be required to comply with the following: All on-site outdoor cargo-handling equipment (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) and all on-site indoor forklifts will be powered by electricity where feasible.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>AQ-23: Future AGSP Developments shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any 1 hour that is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.</p>	<p>City of Highland and/or City of San Bernardino</p>

Environmental Category / Avoidance, Minimization and Mitigation Measures	Responsible Agency
AQ-24: Future AGSP Developments shall not discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property.	City of Highland and/or City of San Bernardino
AQ-25: Future AGSP Developments shall be required to comply with South Coast Air Quality Management District 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. Applicable dust suppression requirements from Rule 403 are summarized below. <ul style="list-style-type: none"> • Nontoxic chemical soil stabilizers shall be applied according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more). • Active sites shall be watered at least twice daily. (Locations where grading is to occur will be thoroughly watered prior to earthmoving.) • All trucks hauling dirt, sand, soil, or other loose materials shall be covered, or at least 0.6 m (2 ft) of freeboard (vertical space between the top of the load and top of the trailer) maintained in accordance with the requirements of California Vehicle Code (CVC) Section 23114. • Construction access roads shall be paved at least 30 m (100 ft) onto the site from the main road. • Traffic speeds on all unpaved roads shall be reduced to 15 mph or less. 	City of Highland and/or City of San Bernardino
AQ-26: Future AGSP Developments shall be required to comply with South Coast Air Quality Management District Rule 1113 – Architectural Coatings. No person shall apply or solicit the application of any architectural coating within the SCAQMD with VOC content in excess of the values specified in a table incorporated in the Rule. A list of manufacturers of low/no-VOC paints is provided at the following SCAQMD website: http://www.aqmd.gov/docs/default-source/planning/architectural-coatings/reporting-and-support-documents/rule-314-manufacturers.pdf?sfvrsn=4 All paints will be applied using either high volume low-pressure spray equipment or by hand application.	City of Highland and/or City of San Bernardino
AQ-27: Future AGSP Developments shall be required to comply with South Coast Air Quality Management District Rule 1301 – General. This rule is intended to provide that pre-construction review requirements to ensure that new or relocated facilities do not interfere with progress in attainment of the NAAQS, while future economic growth within the South Coast Air Quality Management District is not unnecessarily restricted. The specific air quality goal is to achieve no net increases from new or modified permitted sources of nonattainment air contaminants or their precursors. Rule 1301 also limits emission increases of ammonia, and Ozone Depleting Compounds (ODCs) from new, modified or relocated facilities by requiring the use of Best Available Control Technology (BACT).	City of Highland and/or City of San Bernardino
AQ-28: Building operators will require (by contract specifications) that equipment, including heavy-duty equipment, motor vehicles, and portable equipment, be turned off when not in use for more than 5 minutes. Truck idling shall not exceed 5 minutes in time. All facilities will post signs requiring that trucks shall not be left idling for more than 5 minutes pursuant to Title 13 of the California Code of Regulations, Section 2485, which limits idle times to not more than five minutes. Nighttime (after 10:00 PM) truck idling would not be permitted.	City of Highland and/or City of San Bernardino
AQ-29: Future AGSP Developments shall be required to meet or exceed 2020 Title 24, Part 6 Standards and meet Green Building Code Standards for future structures.	City of Highland and/or City of San Bernardino

Environmental Category / Avoidance, Minimization and Mitigation Measures	Responsible Agency
AQ-30: Future AGSP Developments shall be required to utilize faucets, toilets and showers that are low-flow fixtures that would reduce indoor water demand by 20% per CalGreen Standards.	City of Highland and/or City of San Bernardino
AQ-31: Future AGSP Developments shall be required to comply with a recycling program that reduces waste to landfills by a minimum 60 percent per AB 341.	City of Highland and/or City of San Bernardino
AQ-32: Future AGSP Developments shall be required to utilize high-efficiency lighting that is at least 34% more efficient than standard lighting.	City of Highland and/or City of San Bernardino
AQ-33: Future AGSP Developments shall be required to utilize light-colored paving and roofing materials, and encourage the use of cool or green roofs for future AGSP development.	City of Highland and/or City of San Bernardino
AQ-34: Future AGSP Developments shall be required to utilize water-based or low VOC cleaning products.	City of Highland and/or City of San Bernardino
AQ-35: Future AGSP Developments shall be required to coordinate with Edison to install EV Charging Stations incrementally over the life of the project as required by future demand. The initial installation of EV Charging Stations shall be determined through consultation between the Developer, Southern California Edison, and the City of Highland and/or San Bernardino.	City of Highland and/or City of San Bernardino
AQ-36: Future AGSP Developments shall require trucks to utilize truck routes identified in the Airport Gateway Specific Plan. In order to enforce this requirement, truck routes will be clearly marked with trailblazer signs, so that trucks will not enter residential areas.	City of Highland and/or City of San Bernardino
AQ-37: Future AGSP Developments shall be required to use or to retain a landscaping contractor(s) that uses electric landscaping equipment, if contractors with electric equipment are feasible to retain within the immediate project area.	
AQ-38: Future AGSP Developments shall be required to include a contract specification in the street sweeping contract that uses electric or alternatively fueled sweepers with HEPA filters. If contractors with such equipment are not available readily in the project area, the Developer shall document this fact and the cleanest sweepers available in response to this contract specification shall be used.	City of Highland and/or City of San Bernardino
AQ-39: Future AGSP Developments shall be required to maximize the planting of drought resistant trees in landscaping and parking lots and when/if recycled water becomes available in the future, landscaping shall be supported by this alternative source of water supply.	City of Highland and/or City of San Bernardino
AQ-40: Future AGSP Developments shall be required to utilize only Energy Star heating, cooling, and lighting devices, and appliances.	City of Highland and/or City of San Bernardino
AQ-41: Future development under the AGSP shall be designed to require internal check-in points for trucks to minimize queuing outside of the project site.	City of Highland and/or City of San Bernardino
AQ-42: Future AGSP Developments shall be required to comply with the following: Any operation or activity that might cause the emission of any smoke, fly ash, dust, fumes, vapors, gases, or other forms of air pollution, which can cause damage to human health, vegetation, or other forms of property, or can cause excessive soiling on any other parcel, shall conform to the requirements of the South Coast Air Quality Management District.	City of Highland and/or City of San Bernardino

Environmental Category / Avoidance, Minimization and Mitigation Measures	Responsible Agency
AQ-43: Where future projects under the AGSP require permits from SCAQMD to operate specific types of equipment and processes, the developers/operators shall be required to obtain such permits prior to operation of the specific equipment and processes requiring the permit.	City of Highland and/or City of San Bernardino
AQ-44: Future AGSP Developments that require the use of backup generators due to a delay in service from Edison shall be limited to a use period of 9 months total. No permanent use of generators shall be allowed. Prior to operation of a generator for a period of over three months, a Health Risk Assessment (HRA) to address impacts to nearby sensitive receivers shall be prepared. The HRA shall be prepared in accordance with the provisions of MM AQ-15 (If the HRA shows that the incremental cancer risk of an individual Project exceeds 10 in 1 million or the appropriate noncancer hazard index exceeds 1.0, the individual Project's will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms).	City of Highland and/or City of San Bernardino
Impact Description	Impact After Mitigation
As described in Subchapter 4.4, construction of the proposed AGSP would result in NO _x and PM ₁₀ emissions that exceed applicable SCAQMD regional air quality thresholds. Additionally, the Project operational-source emissions would exceed applicable SCAQMD regional thresholds of significance for emissions of NO _x and PM ₁₀ when compared to the existing sources of emissions. Thus, operational and construction-source air quality impacts are projected to result in an unavoidable significant adverse impact with respect to NO _x and PM ₁₀ emissions. As the future Project's emissions will comply with federal, state, and local air quality standards, the proposed Project's emissions are not sufficiently high enough to use a regional modeling program to correlate health effects on a basin-wide level, and would not provide a reliable indicator of health effects if modeled.	As described in Subchapter 4.4, construction of the proposed AGSP would result in NO _x and PM ₁₀ emissions that exceed applicable SCAQMD regional air quality thresholds based on additional mitigation. Additionally, even after implementation of the recommended mitigation measures, the Project operational-source emissions would exceed applicable SCAQMD regional thresholds of significance for emissions of NO _x and PM ₁₀ when compared to the existing sources of emissions. No other feasible mitigation measures have been identified that would reduce these emissions to levels that are less than significant; however, 40 mitigation measures have been identified to minimize air pollution emissions to the greatest extent feasible. Thus, operational and construction-source air quality impacts are projected to result in an unavoidable significant adverse impact with respect to NO _x and PM ₁₀ emissions. Impacts to sensitive receptors would be less than significant and furthermore mitigation shall be implemented to ensure that projects exceeding a specific size prepare project-specific health risk assessments to mitigate for potential impacts thereof. Exceedances of applicable SCAQMD regional thresholds are considered significant and unavoidable, and therefore impacts under this issue are considered significant and unavoidable.

Environmental Category / Avoidance, Minimization and Mitigation Measures	Responsible Agency
<p>BIOLOGICAL RESOURCES</p> <p>BIO-1: A Pre-construction Burrowing Owl Survey shall be conducted by a qualified biologist at least 3 days prior to any ground disturbing activities, at any time of year. Surveys shall be completed following the recommendations and guidelines provided within the Staff Report on Burrowing Owl Mitigation (CDFG, March 2012) or most recent version by a qualified biologist. If an active burrowing owl burrow is detected within any Project disturbance area, or within a 500-foot buffer of the disturbance area, a 300- foot radius buffer zone surrounding the burrow shall be flagged, and no impacts to soils or vegetation or noise levels above 65 dBA shall be permitted while the burrow remains active or occupied. Disturbance-free buffers may be modified based on site-specific conditions in consultation with CDFW. The qualified biologist shall monitor active burrows daily and will increase buffer sizes as needed if owls show signs of disturbance. If active burrowing owl burrows are located within any work area and impact cannot be avoided, a qualified biologist shall submit a burrowing owl exclusion plan to CDFW for review and approval. The burrowing owl exclusion plan shall include permanent compensatory mitigation consistent with the recommendations in the Staff Report on Burrowing Owl Mitigation such that the habitat acreage, number of burrows and burrowing owls impacted are replaced. Passive relocation shall take place outside the nesting season (1 February to 31 August).</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>BIO-2: As part of all future applications for development under the AGSP within the habitat patch located north of 5th Street, South of 6th Street, west of State Route (SR) 210 and east of Central Avenue, biology surveys for SBKR, CAGN, and CBB shall be performed and submitted to the City of Highland. If any of these species are identified within this property, the site shall be avoided or mitigation acceptable to the City and regulatory agencies shall be provided.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>BIO-3: Prior to issuance of grading permits within the streambed, the developer shall provide the City with regulatory permits for impacts to the City Creek Bypass Channel. To compensate for the impacts to these waters of the State, the party seeking channel modifications shall either implement onsite enhancement in the area set aside to protect stream channel habitat or acquire offsite compensatory mitigation habitat or create such habitat at a 1:1 mitigation-to-impact ratio. This habitat shall be located within the watershed. The regulatory permits (Regional Board Waste Discharge Requirements and CDFW 1602) may increase this compensatory ratio but the IVDA finds that this is the minimum habitat required to offset the impacts to water resources on the project site.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>BIO-4: Bird nesting season generally extends from February 1 through September 15 in southern California and specifically, April 15 through August 31 for migratory passerine birds. To avoid impacts to nesting birds (common and special status) during the nesting season, a qualified Avian Biologist will conduct pre-construction Nesting Bird Surveys (NBS) prior to project-related disturbance to nestable vegetation to identify any active nests. If no active nests are found, no further action will be required. If an active nest is found, the biologist will set appropriate no-work buffers around the nest which will be based upon the nesting species, its sensitivity to disturbance, nesting stage and expected types, intensity and duration of disturbance. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved no-work buffer zone shall be clearly marked in the field, within which no disturbance activity shall commence until the qualified biologist has determined the young birds have successfully fledged and the nest is inactive.</p>	<p>City of Highland and/or City of San Bernardino</p>

Environmental Category / Avoidance, Minimization and Mitigation Measures		Responsible Agency
BIO-5:	Future developers shall implement an invasive species management plan during construction of future specific projects. For project sites that are smaller than 1-acre, the developer shall utilize the City's guidelines for management of invasive species. For larger projects, greater than 1-acre, the developer shall prepare a site-specific invasive species management plan. Should invasive species be inadvertently introduced to a site, the contractor shall remove the infestation to the satisfaction of the city prior to receiving a construction completed notice.	City of Highland and/or City of San Bernardino
BIO-6:	Future development under the AGSP shall not be allowed to utilize of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species, in the unlikely event that any such species exist within the AGSP Planning Area.	City of Highland and/or City of San Bernardino
Impact Description	Impact After Mitigation	
No candidate, sensitive, or special status species have a potential to be impacted as a result of implementation of the proposed AGSP, with the exception of burrowing owl. As far as BUOW, the habitat within the vacant parcels and the City Creek Bypass Channel is considered potentially suitable for burrowing owl, and thus, without mitigation, impacts to this species could be significant. While no potential was identified to impact San Bernardino kangaroo rat or California coastal gnatcatcher, these species are known to exist in the vicinity of the AGSP, and therefore, without contingency mitigation may be significantly impacted by the implementation of the AGSP. Any unpermitted and unmitigated modifications to the City Creek Bypass Channel downstream of Victoria Avenue would have a potential to result in significant impacts on any riparian habitat or other sensitive natural community and/or 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. There is habitat for nesting birds and foraging raptors in the ornamental trees, California pepper trees and Eucalyptus trees found in the Specific Plan area, and while compliance with the Migratory Bird Treaty Act is mandatory, mitigation to ensure protection of nesting birds and foraging raptors is necessary to prevent a significant impact from occurring. Without mitigation to control the introduction of invasive species into the project area, and to enforce compliance with the tree ordinance, a significant potential to conflict with any local policies or ordinances protecting of biological resources, such as a tree preservation policy or ordinance may occur from project implementation.	As described in Subchapter 4.5 of this DEIR, due to the lack of significant biological resources within the proposed project area, the Project is not forecast to cause any direct significant unavoidable adverse impact to sensitive biological resources. This is because all potential impacts to biological resources within the Project area would be limited and can be mitigated to a less than significant impact level. Thus, based on the lack of significant onsite biological resources and the mitigation that must be implemented to control potential site-specific impacts on biological resources, the proposed Project is not forecast to cause significant unavoidable adverse impacts to biological resources.	

Environmental Category / Avoidance, Minimization and Mitigation Measures	Responsible Agency
<p>CULTURAL RESOURCES</p> <p>CUL-1: Where a future discretionary project requiring a Negative Declaration or follow-on EIR is proposed within an existing facility that has been totally disturbed due to it undergoing past engineered site preparation (such as a roadway or engineered building site), the agency implementing the AGSP project will not be required to complete a follow-on cultural resources report</p> <p>Where a Phase I Cultural Resources Investigation is not required or at any location where a subsurface cultural resource is accidentally exposed, the following shall be required to minimize impacts to any accidentally exposed cultural resource materials:</p> <ul style="list-style-type: none"> • Should any cultural resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the Implementing Agency's onsite inspector. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act. 	<p>City of Highland and/or City of San Bernardino</p>
<p>CUL-2: Where a future discretionary project requiring a Negative Declaration or follow-on EIR is proposed within an undisturbed site <u>and/or</u> a site that will require substantial earthmoving activities and/or excavation, a Phase I Cultural Resources Investigation is required, the following phases of identification, evaluation, mitigation, and monitoring shall be followed for a given AGSP project:</p> <ol style="list-style-type: none"> 1. Phase I (Identification): A Phase I Investigation to identify historical, archaeological, or paleontological resources in a project area shall include the following research procedures, as appropriate: <ul style="list-style-type: none"> • Focused historical/archaeological resources records searches at SCCIC and/or EIC, depending on the project location, and paleontological resources records searches by NHMLAC, SBCM, and/or the Western Science Center in Hemet. • Historical background research, geoarchaeological profile analysis, and paleontological literature review; • Consultation with the State of California Native American Heritage Commission, Native American tribes in the surrounding area, pertinent local government agencies, and local historic preservation groups; • Field survey of the project area by qualified professionals of the pertinent discipline and at the appropriate level of intensity as determined on the basis of sensitivity assessment and site conditions; • Field recordation of any cultural resources encountered during the survey and proper documentation of the resources for incorporation into the appropriate inventories or databases. 2. Phase II (Evaluation): If cultural resources are encountered in a project area, a Phase II investigation shall be required to evaluate the potential significance of the resources in accordance with the statutory/regulatory framework outlined above. A typical Phase II study consists of the following research procedures: <ul style="list-style-type: none"> • Preparation of a research design to discuss the specific goals and objectives of the study in the context of important scientific questions that may be addressed with the findings and the significance criteria to be used for the evaluation, and to formulate the proper methodology to accomplish such goals; • In-depth exploration of historical, archaeological, or paleontological literature, archival records, as well as oral historical accounts for information pertaining to the cultural resources under evaluation; 	<p>City of Highland and/or City of San Bernardino</p>

Environmental Category / Avoidance, Minimization and Mitigation Measures	Responsible Agency
<ul style="list-style-type: none"> • Fieldwork to ascertain the nature and extent of the archaeological/paleontological remains or resource-sensitive sediments identified during the Phase I study, such as surface collection of artifacts, controlled excavation of units, trenches, and/or shovel test pits, and collection of soil samples; • Laboratory processing and analyses of the cultural artifacts, fossil specimens, and/or soil samples for the proper recovery, identification, recordation, and cataloguing of the materials collected during the fieldwork and to prepare the assemblage for permanent curation, if warranted. <p>3. <u>Phase III (Mitigation)</u>: For resources that prove to be significant under the appropriate criteria, mitigation of potential project impact is required. Depending on the characteristics of each resource type and the unique aspects of significance for each individual resource, mitigation may be accomplished through a variety of different methods, which shall be determined by a qualified archaeologist, paleontologist, historian, or other applicable professional in the “cultural resources” field. Typical mitigation for historical, archaeological, or paleontological resources, however, may focus on the following procedures, aimed mainly at the preservation of physical and/or archival data about a significant cultural resource that would be impacted by the project:</p> <ul style="list-style-type: none"> • Data recovery through further excavation at an archaeological site or a paleontological locality to collect a representative sample of the identified remains, followed by laboratory processing and analysis as well as preparation for permanent curation; • Comprehensive documentation of architectural and historical data about a significant building, structure, or object using methods comparable to the appropriate level of the Historic American Buildings Survey (HABS) and the Historic American Engineering Record (HAER) for permanent curation at a repository or repositories that provides access to the public; • Adjustments to project plans to minimize potential impact on the significance and integrity of the resource(s) in question. <p>4. <u>Phase III (Monitoring)</u>: At locations that are considered sensitive for subsurface deposits of undetected archaeological or paleontological remains, all earth-moving operations shall be monitored continuously or periodically, as warranted, by qualified professional practitioners. Archaeological monitoring programs shall be coordinated with the nearest Native American groups, who may wish to participate</p>	
<p>CUL-3: After each phase of the studies required by mitigation measure CUL-2 has been completed, where required, a complete report on the methods, results, and final conclusions of the research procedures shall be prepared and submitted to SCCIC, EIC, NHMLAC, and/or SBCM, as appropriate and in addition to the lead agency for the project, for permanent documentation and easy references by future researchers,</p>	<p>City of Highland and/or City of San Bernardino</p>

Impact Description	Impact After Mitigation
<p>Implementation of the AGSP may affect historical resources due to the age of the existing structures and known history of the project area. It is possible that some of the buildings within the project area may qualify as significant historical resources, and also possible that subsurface historical resources could be discovered during construction, so mitigation has been identified to address these circumstances. The cultural resources evaluation identified relatively few known prehistoric resource sites within the project area, but without mitigation to protect known and unknown resources within the project area, a significant impact under cultural resources could occur.</p>	<p>As described in Subchapter 4.6 of this DEIR, potential cultural resource impacts associated with the proposed Project can be mitigated to a less than significant impact level. Implementation of the AGSP may affect historical resources due to the age of the existing structures and known history of the project area, however, mitigation has been identified to address this issue. It is possible that some of the buildings within the project area may qualify as significant historical resources, and also possible that subsurface historical resources could be discovered during construction, so mitigation has been identified to address these circumstances. The cultural resources evaluation identified relatively few known prehistoric resource sites within the project area. The accidental exposure of subsurface archaeological resources of significance can be mitigated. Given the above, there will not be any unavoidable Project specific or cumulatively significant adverse impacts to cultural resources from implementing the AGSP as proposed, though mitigation is required minimize such impacts from reaching a level of significant adverse impact.</p>

Environmental Category / Avoidance, Minimization and Mitigation Measures	Responsible Agency
<p>ENERGY Refer to Air Quality and Greenhouse Gas mitigation measures.</p>	<p>—</p>
Impact Description	Impact After Mitigation
<p>Project construction and operations would not result in the inefficient, wasteful or unnecessary consumption of energy. The Project would therefore not cause or result in the need for additional energy producing or transmission facilities. The Project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservation goals within the State of California. The Project would not conflict with any of the state or local plans. As such, a less than significant impact is expected. Furthermore, the proposed project would be consistent with regulations pertaining to energy consumption and demand would ensure that the proposed project would not result in any significant and unavoidable energy impacts. Mitigation is only provided to ensure that energy demand from implementation of the AGSP is reduced to the greatest extent feasible.</p>	<p>As described in Subchapter 4.7 of this DEIR, AGSP construction and operation activities would not result in inefficient, wasteful or unnecessary consumption of energy and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The AGSP is not anticipated to cause or result in the need for additional energy producing or transmission facilities. Furthermore, the Project would comply with regulations imposed by the federal and state agencies that regulate energy use and consumption through various means and programs. No Energy-specific mitigation measures are required to minimize impacts under this issue primarily because of existing regulations regarding energy conservation and use; however, several air quality mitigation measures would reduce construction and operational energy consumption and impacts thereof, further minimizing impacts under this issue. As such, through implementation mitigation referenced in the Section 4.4 Air Quality, local General Plan policies, State and Federal regulations pertaining to energy conservation, SCE programs, and other existing regulations, the proposed Project's potential energy cumulative and Project-specific impacts can be controlled and will be reduced below a level of significance.</p>

Environmental Category / Avoidance, Minimization and Mitigation Measures	Responsible Agency
<p>GEOLOGY AND SOILS</p> <p>GEO-1: All future site-specific projects authorized within the AGSP project area shall prepare and submit comprehensive geotechnical investigation reports to the City with jurisdiction. All of the recommended seismic design and construction measures identified within the geotechnical investigation prepared for a future project to mitigate the following potential geotechnical impacts shall be implemented by the Applicant. Implementation of these specific measures must address all of the identified ground shaking, liquefaction, lateral spreading, collapse, or subsidence hazards identified at a project site.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>GEO-2: Prior to the commencement of construction of any future project within the AGSP project area that will disturb more than 10,000 square feet, the cities or County shall require preparation, approval, and implementation of a site- or project-specific Stormwater Pollution Prevention Plan and Draft Water Quality Management Plan. The construction contractor(s) shall select best management practices (BMPs) applicable to each site-specific development. BMPs shall include activities on each site to achieve a reduction in pollutants from stormwater discharge to the maximum extent practicable during the construction of each future facility within the AGSP, and to control urban runoff after each future facility within the AGSP is constructed and in operation. Examples of BMP(s) that would achieve a reduction in pollutants include, but are not limited to:</p> <ul style="list-style-type: none"> • The use of silt fences or coir rolls; • The use of stormwater de-silting or retention basins; • The use of water bars to reduce the velocity of stormwater runoff; • The use of wheel washers on construction equipment leaving the site; • The washing of silt from public roads at the access point to the site to prevent the tracking of silt and other pollutants from the site onto public roads; • The storage of excavated material shall be kept to the minimum necessary to efficiently perform the construction activities required. Excavated or stockpiled material shall not be stored in water courses or other areas subject to the flow of surface water; and • Where feasible, stockpiled material shall be covered with waterproof material during rain events to control erosion of soil from the stockpiles. 	<p>City of Highland and/or City of San Bernardino</p>
<p>GEO-3: At any location where a subsurface paleontological resource is accidentally exposed, the following shall be required to minimize impacts to any accidentally exposed resource materials:</p> <ul style="list-style-type: none"> • Should any paleontological resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection shall be performed immediately by a qualified paleontologist. Responsibility for making this determination shall be with the Implementing Agency's onsite inspector. The paleontological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act. 	<p>City of Highland and/or City of San Bernardino</p>

Impact Description	Impact After Mitigation
<p>The AGSP Planning Area and Region as a whole contains substantial geological and soils constraints. Due to these substantial constraints and the locations where such constraints may occur, a potential for significant geology and soils resources impacts from implementation of the AGSP was identified.</p>	<p>As described in Subchapter 4.8 of this DEIR, potential new development would be located throughout the AGSP project area and would result in a larger number of structures/people potentially exposed to substantial adverse effects associated with severe ground shaking or ground failure. However, impacts related to geologic and seismic hazards associated with the AGSP would be less than significant by adherence to and/or compliance with building codes and standards and the goals and policies of each City's General Plan. Furthermore, mitigation is required to ensure that future development under the AGSP prepare and submit project specific geotechnical reports and adhere to the recommendations thereof; mitigation is also required to ensure water quality is not substantially degraded during construction or occupancy of future projects under the AGSP. With mitigation implementation, no unavoidable significant adverse on-site or off-site geology or soil impacts have been identified.</p>

Environmental Category / Avoidance, Minimization and Mitigation Measures	Responsible Agency
<p>GREENHOUSE GAS</p> <p>GHG-1: Future AGSP Developments shall be required to construct future buildings to be solar or other clean energy technology compatible, and clean energy ready. Each AGSP structure greater than 50,000 SF shall ensure each structure provides either a solar photovoltaic panel system or other clean energy systems within 2 years of commencing operations where feasible.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>GHG-2: Future AGSP Developments with more than 10 employees or more than 10 company vehicles shall submit a GHG Emissions Reduction Plan (ERP) to the pertinent City for review and approval. The objective of the plan shall be to reduce GHG emissions by a minimum of 10%. The GHG ERP shall consider and identify GHG emission reductions from the following emission source categories as part of the ERP:</p> <ul style="list-style-type: none"> • Energy source reduction from measure GHG-1 • Implementation of Ride Sharing Program (Mobile Source) • Provision of electric vehicle charging stations (Level 2 or Level 3, Mobile Source) • Maintenance of an onsite bicycle sharing program (Mobile Source) • Establishment and support of a mass transit use program (including adjusting hours of operations to complement local mass transit operations, Mobile Source) • Provision of secure bicycle parking facilities (Mobile Source) • Acquisition of a minimum of one company electric vehicle or low NOx emission CNG vehicle, including truck(s) (Mobile source) • Install low demand water consumption systems, internally and outdoors (Water Usage source) • Implement a solid waste management system that achieves greater than 50% recycling (Waste Management Source) • Utilize construction equipment that can reduce GHG and NOx emissions a minimum of 5% (Construction Emissions Source) 	<p>City of Highland and/or City of San Bernardino</p>

Impact Description	Impact After Mitigation
<p>As described in Subchapter 4.9, the proposed project will generate approximately 69,512.06 metric tons CO₂e per year in terms of net emissions when compared to the existing emissions in the Planning Area. The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that the AGSP would generate emissions beyond the SCAQMD 3,000/10,000 MTCO₂e/yr threshold, and as such, will have a significant and unavoidable adverse impact under Greenhouse Gas. Therefore, the project's GHG emissions are considered to be an unavoidable adverse significant impact.</p>	<p>As described in Subchapter 4.9, the proposed project will generate approximately 69,512.06 metric tons CO₂e per year in terms of net emissions when compared to the existing emissions in the Planning Area. The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that after implementation of the recommended mitigation measures, which includes a requirement for future AGSP structures to be solar or alternative energy ready, the AGSP would generate emissions beyond the SCAQMD 3,000/10,000 MTCO₂e/yr threshold, and as such, will have a significant and unavoidable adverse impact under Greenhouse Gas. Therefore, the project's GHG emissions are considered to be an unavoidable adverse significant impact. No feasible mitigation measures have been identified that would reduce these emissions to levels that are less than significant. Thus, exceedances of applicable SCAQMD regional thresholds are considered significant and unavoidable, and the AGSP would create a significant cumulative impact to global climate change.</p>

Environmental Category / Avoidance, Minimization and Mitigation Measures		Responsible Agency
<p>HAZARDS AND HAZARDOUS MATERIALS</p> <p>HAZ-1: Following approval of the AGSP, the cities of Highland and San Bernardino shall jointly designate 3rd and 5th Streets within the AGSP project area as truck routes. 6th Street shall mostly be designated for local deliveries only. Specific design guidelines for new industrial buildings fronting on 6th Street shall incorporate buffers to reduce potential conflicts between the industrial uses that are south of 6th and residential uses north of this roadway. All routine large truck access to industrial projects constructed between 5th and 6th Streets shall be from 5th Street. Buffering techniques along 6th Street may include the following: dense landscape buffering; use of landscaped berms; short walls with articulation; and other designs acceptable to the city with land use jurisdiction.</p>		<p>City of Highland and/or City of San Bernardino</p>
<p>HAZ-2: Prior to and during grading and construction, should an accidental release of a hazardous material occur, the following actions will be implemented: construction activities in the immediate area will be immediately stopped; appropriate regulatory agencies will be notified; immediate actions will be implemented to limit the volume and area impacted by the contaminant; the contaminated material, primarily soil, shall be collected and removed to a location where it can be treated or disposed of in accordance with the regulations in place at the time of the event; any transport of hazardous waste from the property shall be carried out by a registered hazardous waste transporter; and testing shall be conducted to verify that any residual concentrations of the accidentally released material are below the regulatory remediation goal at the time of the event. All of the above sampling or remediation activities related to the contamination will be conducted under the oversight of County Hazardous Materials Division. All of the above actions shall be documented and made available to the appropriate regulatory agencies prior to closure (a determination of the regulatory agency that the site has been remediated to a threshold that</p>		<p>City of Highland and/or City of San Bernardino</p>

Environmental Category / Avoidance, Minimization and Mitigation Measures		Responsible Agency
<p>poses no hazard to humans) of the contaminated area. This measure shall be made a requirement of future projects in the AGSP project area.</p>		
<p>HAZ-3: During grading if an unknown contaminated area is exposed, based on field observations by the contractor, soils engineer or City/County inspector, the following actions will be implemented: any contamination found during construction will be reported to the County Hazardous Materials Division. Further, all of the sampling or remediation related to the contamination will be conducted under the oversight of this County department. In the event contamination is found, construction activities in the immediate area will be immediately stopped; appropriate regulatory agencies will be identified; a qualified professional (industrial hygienist or chemist) shall test the contamination and determine the type of material and define appropriate remediation strategies; immediate actions will be implemented to limit the volume and area impacted by the contaminant; the contaminated material, primarily soil, shall be collected and removed to a location where it can be treated or disposed of in accordance with the regulations in place at the time of the event; any transport of hazardous waste from the property shall be carried out by a registered hazardous waste transporter; and testing shall be conducted to verify that any residual concentrations of the accidentally released material are below the regulatory remediation goal (MCL) at the time of the event. All of the above actions shall be documented and made available to the appropriate regulatory agencies prior to closure of the contaminated area (a determination of the regulatory agency that the site has been remediated to a threshold that poses no hazard to humans or the environment). This measure shall be made a requirement of future projects in the AGSP project area.</p>		<p>City of Highland and/or City of San Bernardino</p>
<p>HAZ-4: The City reviewing future site-specific development proposals shall verify the distance from the nearest school. If located within one-quarter mile of a school, the application for the project must demonstrate that no handling of acutely hazardous materials will occur within the facility. Alternatively, the proposed development can provide sufficient information to the City to verify that hazardous emission or acutely hazardous materials will be under sufficient control that potential exposure at the school is negligible, less than a once in 100-year possibility.</p>		<p>City of Highland and/or City of San Bernardino</p>
<p>HAZ-5: To the extent that construction activities must occur within adjacent on-site and off-site roadway rights-of-way, a Traffic Management Plan, prepared for construction activities, shall provide adequate emergency access to all parcels of land at all times, and shall include measures to ensure that during an emergency evacuation, the right-of-way is accessible for this purpose. Adequate emergency access is defined as access by any emergency personnel to any occupied parcel at all times during construction activities. Prior to grading permit issuance, the Cities of Highland and San Bernardino shall verify and approve the construction Traffic Management Plan that must incorporate adequate measures to ensure emergency access and availability of adjacent on-site and off-site roadways should an evacuation be needed.</p>		<p>City of Highland and/or City of San Bernardino</p>

Impact Description	Impact After Mitigation
<p>The AGSP Planning Area and Region as a whole contains substantial hazards and hazardous materials issue constraints. Due to these substantial constraints and the development of future projects under the AGSP in locations where such constraints may exist, a potential for significant hazards and hazardous materials issue impacts from implementation of the AGSPP were identified in Subchapter 4.10.</p>	<p>As described in Subchapter 4.10 of this DEIR, the Project requires mitigation measures to address the following: identification of and adherence to truck routes that connect regional transportation corridors with the project area to minimize interface between mixed-use business park and residential uses; minimize the potential for accidental release of hazardous materials; address the potential for unknown contaminated materials to be exposed during construction and provide protocol for remediation; minimize the potential for uses to be developed near schools that require routine handling of hazardous materials; and, ensure that infrastructure construction activities in roadways minimize interference with emergency routes and access. Therefore, though there will be some adverse impacts as a result of implementing the Project, specific mitigation measures have been identified to reduce potential Project specific and cumulative (direct and indirect) effects to a less than significant impact level for hazards and hazardous material issues. Thus, the AGSP is not forecast to cause any unavoidable significant adverse hazards or hazardous material impacts.</p>

Environmental Category / Avoidance, Minimization and Mitigation Measures	Responsible Agency
<p>HYDROLOGY AND WATER QUALITY</p> <p>HYD-1: The future developer shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP), which specifies Best Management Practices that will be implemented to prevent construction pollutants from contacting stormwater and with the performance standard of keeping all products of erosion from moving offsite. The SWPPP shall be developed with the goal of achieving a reduction in pollutants both during and following construction to control urban runoff to the maximum extent practicable based on available, feasible best management practices. The SWPPP and the monitoring program for the construction projects shall be consistent with the requirements of the latest version of the State's General Construction Activity Storm Water Permit and NPDES No. CAS618033, Order No. R8-210-0036 for projects within San Bernardino County or the permit in place at the time of construction.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>HYD-2: The Project-Specific Water Quality Management Plan (WQMP) which defines bioretention basins and treatment units as permanent Best Management Practices shall be implemented to prevent long-term surface runoff from discharging pollutants from site on which construction has been completed. The WQMP shall be implemented with the goal of achieving a reduction in pollutants following construction to control urban runoff pollution to the maximum extent practicable based on available, feasible best management practices at the time of construction. The stormwater discharge from the project site shall be treated to control pollutant concentrations for all pollutants, but especially for those identified pollutants that impair downstream surface water quality at the time construction occurs. Source Control BMPs reduce the potential for urban runoff and pollutants from coming into contact with one another. Source Control BMPs that may be incorporated into the project are described in County's TGM.</p>	<p>City of Highland and/or City of San Bernardino</p>

Environmental Category / Avoidance, Minimization and Mitigation Measures		Responsible Agency
HYD-3:	Future projects implemented within the AGSP project area shall submit an Infiltration Feasibility Analysis and a Low Impact Development drainage design to the local jurisdiction. The agency shall review these two studies, provide feedback and guidance, and approve final versions of both studies. The developer shall implement/install the onsite drainage and water quality design features in the approved version of the studies. Adjacent drainage infrastructure consistent with CSDP No. 6 shall be installed by future AGSP projects as part of the proposed project.	City of Highland and/or City of San Bernardino
HYD-4:	The IVDA shall coordinate and combined with the two cities (Highland and San Bernardino) the CSDP No. 6 City Creek By-Pass channel design shall be implemented in order to receive stormwater generated from within the identified watershed. The final design shall receive approvals from San Bernardino County and other agencies with interest (such as the Regional Board) and be under construction and implemented from Victoria to the Twin (Warm) Creek channel by year 5 of the Plans authorization or before 2.5 million square feet off development has occurred within the AGSP project area.	Inland Valley Development Agency, City of Highland and City of San Bernardino
Impact Description		Impact After Mitigation
As described in Subchapter 4.11 of this DEIR, the proposed Project will make unavoidable alterations in the Planning Area hydrology and the proposed uses have a potential to result in generation of new pollutants from the proposed urban/suburban environment that can degrade water quality. The overall hydrology and water quality impacts that would result from implementation of the AGSP could be significant without the implementation of substantive mitigation measures. As such, several mitigation measures were identified to minimize impacts related to hydrology and water quality.		As described in Subchapter 4.11 of this DEIR, the Project requires mitigation measures to address the following: ensure that during construction the SWPPP will be implemented to control any discharges from a site to minimize potential water quality degradation during this stage of development; ensure that the Project-Specific WQMPs will be implemented in a manner comparable to that identified for the watershed; ensure that future projects implemented within the AGSP project area shall submit an Infiltration Feasibility Analysis and a Low Impact Development drainage design to the local jurisdiction; and, ensure that the City Creek By-Pass channel can be re-constructed in a timely manner. Through implementation of mitigation, potential hydrology and water quality impacts can be controlled to a less than significant impact level. The proposed AGSP will not cause unavoidable significant hydrology or water quality impacts.

Environmental Category / Avoidance, Minimization and Mitigation Measures		Responsible Agency
LAND USE AND PLANNING		
LU-1:	Prior to implementation of any project under the AGSP, each city will complete the required shift of conforming residential units to alternative locations in both cities.	City of Highland and/or City of San Bernardino
LU-2:	Once the AGSP is adopted, the IVDA, City of Highland and City of San Bernardino will explore the establishment of a community facilities district, or comparable mechanism, to provide a source of funding for common infrastructure elements within the AGSP; to seek grant funds; and secure low-interests loans. This funding mechanism must be established within one year of approval of the AGSP by all three agencies.	Inland Valley Development Agency, City of Highland and City of San Bernardino
Impact Description		Impact After Mitigation
The change in character resulting from the AGSP would be consistent with the existing General Plan visions for both the site and the general area, and as such would not physically divide a community. The proposed project is considered consistent with the relevant goals of the SCAG RTP/SCS and each City's General Plan Land Use Element Goals, however, the loss of residential units as a result of project implementation would have a potentially significant impact without mitigation to address this issue.		As described in Subchapter 4.12 of this DEIR, no significant impacts to land use and planning from implementing the AGSP are anticipated to occur. However, based on the available data and analysis presented in this DEIR, with implementation of mitigation to establish a relocation program for existing residents of the area, and ensure that a community facilities district is established, impacts would be less than significant. Therefore, the proposed Project will not cause unavoidable significant land use and planning impacts.

Environmental Category / Avoidance, Minimization and Mitigation Measures		Responsible Agency
MINERAL RESOURCES		
No mitigation measures		—
Impact Description		Impact After Mitigation
As described in Subchapter 4.13 of this DEIR, the project site and surrounding area do not contain any existing mineral development nor any identified potential for mineral resource development. Please note that the southern boundary of the AGSP is 3 rd and/or 5 th Street and the mineral resource areas south of this border will not be affected by the AGSP. Based on these data, the proposed Project has no potential to cause any unavoidable significant adverse impact to mineral resources or values in the project area.		No mitigation is required. Impacts are less than significant.

Environmental Category / Avoidance, Minimization and Mitigation Measures	Responsible Agency
<p>NOISE</p> <p>NOI-1: To reduce potential operational noise levels increases at the nearby noise-sensitive receiver locations, the AGSP shall include the following operational noise mitigation measures:</p> <ul style="list-style-type: none"> • The AGSP shall be designed to minimize the potential noise exposure to nearby noise sensitive land uses including: <ul style="list-style-type: none"> ○ locating driveways and vehicle access points away from noise sensitive uses. ○ locating loading docks away from adjacent noise sensitive uses. ○ minimize the use of outside speakers and amplifiers. ○ incorporate walls landscaping and other noise buffers and barriers between uses, as appropriate. • Sound barrier walls or earth berms of sufficient height and length shall be provided to reduce exterior noise levels to 65 CNEL or lower at nearby noise sensitive uses. Prior to the issuance of grading permits, an acoustical analysis report shall be prepared by a qualified acoustical consultant. The report shall specify the noise barriers' height, location, and types capable of achieving the desired mitigation affect. • All on-site operating equipment that is used in outdoor areas (including but not limited to trucks, tractors, forklifts, and hostlers), shall be operated with properly functioning and well-maintained mufflers. • Maintain quality pavement conditions on the property that are free of vertical deflection (i.e., speed bumps) to minimize truck noise. • The truck access gates and loading docks within the truck court on the Project site shall be posted with signs which state: <ul style="list-style-type: none"> ○ Truck drivers shall turn off engines when not in use; ○ Diesel trucks servicing the Project shall not idle for more than five (5) minutes; and ○ Post telephone numbers of the building facilities manager to report idling violations. 	<p>City of Highland and/or City of San Bernardino</p>
<p>NOI-2: During all future AGSP construction, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. The construction contractors shall place all stationary construction equipment so that emitted noise is directed away from the noise-sensitive receivers nearest to a given Project site.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>NOI-3: The construction contractors shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receivers nearest to a given Project site during all future construction under the AGSP.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>NOI-4: The construction contractors shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise. This shall be accomplished through preparation of a construction routing plan approved by the IVDA and either or both affected cities.</p>	<p>Inland Valley Development Agency, City of Highland and City of San Bernardino</p>
<p>NOI-5: No music or electronically reinforced speech from construction workers shall be audible at noise-sensitive properties.</p>	<p>City of Highland and/or City of San Bernardino</p>

Environmental Category / Avoidance, Minimization and Mitigation Measures		Responsible Agency
NOI-6:	During construction, portable noise barriers shall be placed near the noise-producing equipment between the noise source and the receptors for activities where the anticipated noise at the sensitive receptor would exceed 60dBA. The noise barriers may be constructed from construction materials such as from 4-foot by 8-foot sheets of marine plywood (minimum one-inch thickness) or one and one eighth inch (1 1/8") tongue-in-groove sub-floor, backed with three and a half inch thick R-11 fiberglass insulation for sound absorption. Several such panels may be hinged together in order to be self-supporting and to provide a continuous barrier. The temporary, portable noise barriers should at a minimum reduce noise levels at receptor locations below an exterior sound level of 65 dBA and an interior sound level of 45 dBA at the receptor.	City of Highland and/or City of San Bernardino
NOI-7:	All construction employees that will be exposed to noise levels greater than 75 dB over an 8-hour period shall be provided with adequate hearing protection devices to ensure no hearing damage will result from construction activities. Areas where noise levels are routinely expected to exceed 80 dBA shall be clearly posted with signs requiring hearing protection be worn.	City of Highland and/or City of San Bernardino
NOI-8:	The project proponent for each new Project under the AGSP shall establish a noise complaint/response program that shall include keeping the local community informed of the schedule, duration, and progress of the construction, in order to minimize the public objections to unavoidable noise. Communities where construction is scheduled should be notified in advance of the construction and of the expected construction-related temporary and intermittent noise increases. This can be accomplished by posting signs with phone contacts and information regarding construction schedules a minimum of one week before initiating ground disturbing activities.	City of Highland and/or City of San Bernardino
NOI-9:	To the extent feasible (where construction activities can occur concurrently), the noisiest operations shall be scheduled to occur simultaneously in the construction program to avoid prolonged sequential periods of construction activity annoyance.	City of Highland and/or City of San Bernardino
Impact Description		Impact After Mitigation
As described in Subchapter 4.14, the proposed Project will cause significant off-site transportation noise impacts on the nearest sensitive receptors. Furthermore, construction noise impacts, operation noise impacts, and vibration noise impacts would be result in a significant change in the noise environmental in the AGSP Planning area without the implementation of mitigation.		As described in Subchapter 4.14, the proposed Project will cause significant off-site transportation noise impacts on the nearest sensitive receptors. Mitigation is available to reduce the offsite traffic noise impact, but it cannot be enforced on private property. Consequently, the Project's traffic noise impacts on the surrounding land uses are significant and unavoidable. Construction noise impacts, operation noise impacts, and vibration noise impacts are less than significant with the implementation of mitigation to reduce noise generated from these activities to the extent feasible. Therefore, off-site transportation noise level increases at adjacent noise-sensitive residential homes are considered significant and unavoidable, but all other noise impacts are less than significant.

Environmental Category / Avoidance, Minimization and Mitigation Measures	Responsible Agency
<p>POPULATION AND HOUSING</p> <p>PH-1: For any development actions that may cause displacement of conforming residential occupants (relevant to both tenants and homeowners alike), the Developer shall prepare a relocation plan that complies with the requirements of the California Relocation Assistance Law, California Government Code Section 7260 et seq, and if federal funding is anticipated, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. As a component of the relocation plan, the Developer shall provide an explanation of the relocation requirements that they are complying with, and a detailed relocation plan consistent with one of the above-listed relocation guidelines to include:</p> <ol style="list-style-type: none"> 1. Introduction. 2. Project description. 3. Assessment of the relocation needs of persons subject to displacement. 4. Assessment of available replacement housing units within proximity to the Project site. 5. Description of the relocation program and guidelines to be followed; and 6. Administrative Provisions to include: <ol style="list-style-type: none"> a. Informational Statement and Notices to be provided. b. Description of any citizen participation or outreach efforts. c. Grievance procedures. d. Project schedule or timelines of any proposed displacement e. Estimated budget to provide relocation benefits in accordance with the identified relocation program requirements. <p>A sample outline of the components of the relocation plan to be prepared, incorporating the above, will include but not be limited to the outline, methodology, and information contained in the Model/Conceptual Relocation Plan Mitigation prepared by OPC (provided as Appendix 10 of Volume 2 of this DPEIR).</p> <p>Before proceeding with and causing displacement of individuals and households, general notice of the relocation plan shall be provided, and notice shall be designed to reach the occupants of all properties to be displaced, and shall be provided 30 days prior to submission to the Agency for approval.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>PH-2: Where sufficient comparable replacement housing resources do not exist at the time a displacement is proposed to occur, the Developer shall be required to complete a second-tier CEQA evaluation documenting displacement impacts.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>PH-3: Where the only available means to provide sufficient replacement housing to persons that would be displaced by development under the AGSP is constructing new housing, the Developer or Agency shall be required to complete a second-tier CEQA evaluation</p>	<p>City of Highland and/or City of San Bernardino</p>

Impact Description	Impact After Mitigation
<p>As described in Subchapter 4.15 of this DEIR, the Project is forecast to ultimately employ approximately 5,097 persons, though it is unknown whether the new employees will be drawn from the general area or bring new residents to the Cities of San Bernardino and City of Highland. It is not anticipated that the whole of the number of anticipated employees generated by implementation of the AGSP would be new residents of the Cities of Highland and San Bernardino, particularly given the available labor force/unemployment rate within the Cities of Highland and San Bernardino. However, even with the 77,901-person gap exists between the 2016 population and the projected build out populations for each City, the proposed project may induce limited population growth. Regardless, the proposed project will not induce substantial population growth that exceeds either local or regional projections. Thus, the project would have a less than significant potential to induce substantial population growth.</p> <p>As stated above under Section 4.12, Land Use and Planning, implementation of the AGSP would result in development that has the potential to displace existing persons and housing within the AGSP Planning Area. Without provision of adequate resources to facilitate relocation of persons that would be displaced by the AGSP, and without the minimization of the potential for circumstances related to insufficient replacement the AGSP would result in a potential for a significant adverse impact to occur related to the displacement of existing people or housing necessitating replacement housing elsewhere.</p>	<p>Implementation of the AGSP would result in development that has the potential to displace existing persons and housing within the AGSP Planning Area. Mitigation is required to ensure that a Model/Conceptual Relocation Plan will be implemented to ensure that future developers provide adequate relocation resources to affected persons or households. The provision of adequate resources to facilitate relocation of persons that would be displaced by the AGSP, and the minimization of the potential for circumstances related to insufficient replacement housing through implementation of mitigation would minimize the potential for a significant adverse impact to occur related to the displacement of existing people or housing necessitating replacement housing elsewhere. Based on these data, the proposed project has a less than significant potential to cause any unavoidable significant adverse impacts to population and housing resources in the project area.</p>

Environmental Category / Avoidance, Minimization and Mitigation Measures		Responsible Agency
PUBLIC SERVICES No mitigation measures are required.		—
Impact Description	Impact After Mitigation	
As described in described in Subchapter 4.16 of this DEIR, impacts to fire and police protection will be mitigated through the payment of the Development Impact Fees to the City within which development under the AGSP will occur. Furthermore, contribution of both sales taxes and property taxes to the general funds of each City would offset the incremental demand for fire and police protection services. Impacts to schools and other public services will be less than significant with the Project's contribution of property and sales taxes to the general fund and payment of school impact fees. Parks and Recreation are discussed under Subchapter 4.17 of this DEIR. It was determined that the Cities consider impacts to parks from industrial, commercial, and other non-residential projects less than significant through the contribution of property and sales taxes, which in turn contribute to the general funds of the Cities of Highland and San Bernardino commensurate with property value and sales values. However, there is a potential for new residents generated indirectly from implementation of AGSP to create a demand for parks beyond that which is currently provided or identified within either City. Therefore, as there is not currently a funding mechanism to obtain funds from Industrial and Commercial uses within either the City of Highland or City of San Bernardino, mitigation sets forth the framework from which funding for future parks can be obtained from future AGSP projects. Mitigation will preclude the AGSP from creating any unavoidable significant adverse impact to parks and recreation. Thus, the basis for this conclusion is that in addition to mitigation to minimize impacts to parks, adequate funding will be generated to offset Project-related new demand for public services within the Project area.	No mitigation is required. Impacts are less than significant.	

Environmental Category / Avoidance, Minimization and Mitigation Measures		Responsible Agency
<p>RECREATION AND PARKS</p> <p>REC/PK-1: Future projects shall contribute funds to the City/Cities within which the proposed development is located that shall be allocated to developing or improving parks and/or recreational facilities within the AGSP planning area or otherwise located within the corresponding City. The City of San Bernardino, City of Highland, and the Inland Valley Development Agency (IVDA) shall establish a mechanism by which future project proponents can contribute to a funding mechanism to be directed to the development or improvement of City Parks. The fair share for future AGSP Projects, except where the Cities and/or IVDA establish a different funding schedule, shall be that for every 10,000 SF of development associated with the AGSP, the project shall contribute 0.11% of the funds necessary to develop 25.5 acres of parkland or otherwise fairly contribute to development or improvement of parks as defined by the City of San Bernardino, City of Highland, and the IVDA.</p>		<p>Inland Valley Development Agency, City of Highland and City of San Bernardino</p>
Impact Description	Impact After Mitigation	
<p>As described in Subchapter 4.17 of this DEIR, and above under the discussion for Public Services, the Project may indirectly induce population growth that may require new park land and recreation facilities to serve the minor project-related population increase. The project's contribution of taxes to each City's General Fund—which cover development of new and improvements to existing parks and recreation facilities within the City—is generally considered adequate to offset most Project-related new demand for park and recreation facilities within each City. However, there is a potential for new residents generated indirectly from implementation of AGSP to create a demand for parks, and as there is not currently a funding mechanism to obtain funds from Industrial and Commercial uses within either the City of Highland or City of San Bernardino. Thus, a significant impact from AGSP implementation on parks and recreation could occur.</p>	<p>As described in Subchapter 4.17 of this DEIR, as there is not currently a funding mechanism to obtain funds from Industrial and Commercial uses within either the City of Highland or City of San Bernardino, mitigation is required and sets forth the framework from which funding for parks and recreation facilities can be obtained from future AGSP projects. Based on these findings, the proposed Project would not cause significant unavoidable adverse impacts to the area recreation resources.</p>	

Environmental Category / Avoidance, Minimization and Mitigation Measures		Responsible Agency
<p>TRANSPORTATION</p> <p>TRAN-1: Future development under the AGSP shall require fair share contribution towards the deficient roadway segments and intersections outlined under Tables 4.18-4 through 4.18-7. Fair share contribution shall be contributed by future projects within the AGSP in the following manners:</p> <ul style="list-style-type: none"> • Fair share contribution shall be tabulated as a percentage of the total AGSP project cost (\$3,465,119) that shall be based on the square footage of a given future project in relation to the allowable square footage within the AGSP. For instance, if a project would contribute 500,000 square feet (SF) of the allowable 9,199,491 SF within the AGSP, the project's fair share would be to contribute 5.44% (equal to \$188,332.11) of the total fair share cost for AGSP related traffic (\$3,465,119); • The City of San Bernardino, City of Highland, and the Inland Valley Development Agency (IVDA) shall establish a community facilities district or comparable collaborative mechanism that each future project within the AGSP shall pay into to fund roadway the necessary roadway infrastructure to remedy deficiencies identified in Tables 4.18-4 through 4.18-7. 		<p>Inland Valley Development Agency, City of Highland and City of San Bernardino</p>

Environmental Category / Avoidance, Minimization and Mitigation Measures	Responsible Agency
<p>TRAN-2: Every new project within the AGSP shall be required to construct the roadway improvements along the project frontage to achieve full roadway width, including curb, sidewalk, gutter, and width required for bike lanes, where applicable as indicated on the applicable Circulation Element (either the City of San Bernardino or City of Highland). Where these improvements occur at an existing bus stop, the project proponent shall be required to improve the bus stop as directed by OmniTrans and the City within which the project is developed.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>TRAN-3: Where a future project is not located within a quarter mile of an existing OmniTrans bus stop, the project proponent shall be required to consult with the City within which the project is proposed and/or with OmniTrans to determine whether additional stops along this route or other routes are necessary to accommodate future AGSP development as development within the AGSP planning area increases. Where OmniTrans and/or the City determine that a new bus stop is appropriate, the project proponent shall be required to either install a bus stop meeting OmniTrans' standards or shall provide the funds to OmniTrans to develop the bus stop.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>TRAN-4: Future development under the AGSP shall be required to contribute a fair share contribution towards the Regional Multi-Purpose Trail along City Creek. The City of San Bernardino, City of Highland, and the Inland Valley Development Agency (IVDA) shall establish a community facilities district or comparable collaborative mechanism that each future project within the AGSP shall pay into to fund the City Creek Regional Multi-Purpose Trail that would be located within the confines of the AGSP planning area.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>TRAN-5: Future development under the AGSP shall be required to provide bike racks where deemed appropriate by the corresponding City in conjunction with frontage improvements. Additionally, future developments within the AGSP shall provide adequate and secure bicycle storage facilities through the provision of bicycle parking spaces equaling 10% of the total number of automobile parking spaces required for a given development.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>TRAN-6: Future projects shall incorporate truck parking lots within or near the AGSP Planning Area to allow for truck queuing. This can be accomplished on an individual project basis as part of project design, or alternatively the City of San Bernardino, City of Highland, and the Inland Valley Development Agency (IVDA) shall establish a mechanism by which future project proponents can contribute to a funding mechanism to be directed to the development of truck parking lots by the above agency/Cities.</p>	<p>Inland Valley Development Agency, City of Highland and City of San Bernardino</p>
<p>TRAN-7: Every new project within the AGSP shall be required to contribute its fair share to installing signals at the following intersections:</p> <ul style="list-style-type: none"> • Sterling Avenue at 6th Street • Victoria Avenue at 6th Street • Central Avenue at 3rd Street <p>The Cities within which the above intersections are located, at which signals would be installed shall determine the appropriate timing in which to install a signal at the above intersections based on actual peak hour operations, engineering judgement and signal peak hour warrant analyses.</p>	<p>City of Highland and/or City of San Bernardino</p>

Environmental Category / Avoidance, Minimization and Mitigation Measures	Responsible Agency
<p>TRAN-8: The applicable jurisdiction within which a future project under the AGSP is proposed shall require future Applicants to implement transportation demand management (TDM) strategies to reduce project VMT. The measures that shall be considered are, but are not necessarily limited to, the following:</p> <ul style="list-style-type: none"> • Future Building Operators shall prioritize employing local residents • Future Building Operators shall provide pedestrian network improvements • Future Building Operators shall provide traffic calming measures • Future Building Operators shall implement car-sharing program • Future Building Operators shall contribute to increased transit service frequency/speed • Future Building Operators shall encourage telecommuting and alternative work schedules • Future Building Operators shall provide ride-share programs • Future Building Operators shall provide on-site facilities to provide end of trip services for bicycling such as secure bike parking, storage lockers and showering facilities. 	<p>City of Highland and/or City of San Bernardino</p>
<p>TRAN-9: All future projects that require truck access within the AGSP planning area shall be designed such that all truck entrances are located on 3rd Street or 5th Street. No truck entrances shall be located on 6th Street.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>TRAN-10: All future projects within the AGSP planning area with frontage on the north-south streets shall be required to locate their passenger car driveways on the north-south streets, except where the Applicant for a given project petitions to the City within which the project is located that this configuration would be infeasible due to a hazard deemed legitimate by the City.</p>	<p>City of Highland and/or City of San Bernardino</p>
<p>TRAN-11: For projects that require construction within roadways within the AGSP planning area, the City within which the project is located shall require that contractors prepare a construction traffic control plan. Elements of the plan should include, but are not necessarily limited to, the following:</p> <ul style="list-style-type: none"> • Develop circulation and detour plans, if necessary, to minimize impacts to local street circulation. Use haul routes minimizing truck traffic on local roadways to the extent possible. • To the extent feasible, and as needed to avoid adverse impacts on traffic flow, schedule truck trips outside of peak morning and evening commute hours. • Install traffic control devices as specified in Caltrans' Manual of Traffic Controls for Construction and Maintenance Work Zones where needed to maintain safe driving conditions. Use flaggers and/or signage to safely direct traffic through construction work zones. • For roadways requiring lane closures that would result in a single open lane, maintain alternate one-way traffic flow and utilize flagger-controls. • Coordinate with facility owners or administrators of sensitive land uses such as police and fire stations, hospitals, and schools. Provide advance notification to the facility owner or operator of the timing, location, and duration of construction activities. 	<p>City of Highland and/or City of San Bernardino</p>

Impact Description	Impact After Mitigation
<p>Intersection improvements for these 10 deficient intersections have been identified to improve the intersections to operate at an acceptable Level of Service. Furthermore, without intersection improvements, roadway widening, bike route installation and bike parking requirements, sidewalk and bike accommodations, additional bus stops, trail development, and the installation of truck parking lots, the proposed development under the AGSP would have a potentially significant impact on circulation in the Planning Area and region as a whole. The project's transportation impact based on VMT is potentially significant based on City of San Bernardino and SBCTA recommended thresholds. As the efficacy of TDM measures and reduction of VMT impacts thresholds cannot be assured, the project's VMT impact is therefore considered significant and unavoidable.</p>	<p>As described in Subchapter 4.18 of the DEIR, the project requires mitigation measures recommended in the Traffic Impact Analysis to minimize impacts to the circulation system from implementing the AGSP. The roadway improvements shown have been identified to mitigate the project impact on the deficient roadway segments. The project fair share proportion of the improvements are enforced through mitigation that would minimize the circulation impacts from implementation of the AGSP. It is recommended that each development within the Specific Plan construct the roadway improvements along the project frontage to achieve the full roadway width, including curb, sidewalk, and gutter, as indicated on the applicable Circulation Element to improve not only the circulation of automotive traffic, but also improve pedestrian access to this corridor.</p> <p>In addition, the improved frontage shall include space to accommodate a future bike route, and where bicycle parking is not public at future developments within the AGSP, future development would provide adequate and secure bicycle storage facilities with bicycle parking spaces equaling 10% of the total number of automobile parking spaces required for a given development.</p> <p>Future development shall be required to improve existing bus stops along frontages of future project sites, and for projects developed outside of the existing Route, shall consult with OmniTrans to determine whether additional stops along this route or other routes are necessary as development within the AGSP planning area increases.</p> <p>Development associated with the AGSP shall be required contribute funds to further enable the development of this Regional Multi-Purpose Trail along City Creek to ensure trail circulation is promoted by future development. Additionally, future development within the AGSP would incorporate truck parking lots within the Specific Plan or at nearby locations to prevent offsite queuing.</p> <p>However, the project's transportation impact based on VMT is potentially significant based on City of San Bernardino and SBCTA recommended thresholds. As the efficacy of TDM measures and reduction of VMT impacts thresholds cannot be assured, the project's VMT impact is therefore considered significant and unavoidable. As such, based on these findings, the proposed Project would cause significant unavoidable adverse impacts to the regional VMT issue.</p>

Environmental Category / Avoidance, Minimization and Mitigation Measures		Responsible Agency
TRIBAL CULTURAL RESOURCES Refer to Cultural Resources mitigation measures.		—
Impact Description	Impact After Mitigation	
Area tribes were notified of the AGSP and no requests for consultation were submitted. No request for specific mitigation to protect known or unknown tribal cultural resources of significance within the project area was provided. However, potential tribal cultural resources may exist in the project area that could be exposed during construction. Should this occur without proper treatment and action, accidental exposure might result in significant impact under tribal cultural resources.	As described in Subchapter 4.20 of this DEIR, measures outlined under Cultural Resources include mitigation to protect any potential tribal cultural resources that may exist in the project area from accidental exposure. Thus, with implementation of mitigation to protect cultural resources, the Project would not cause significant unavoidable adverse impacts to tribal cultural resources.	

Environmental Category / Avoidance, Minimization and Mitigation Measures		Responsible Agency
UTILITIES AND SERVICE SYSTEMS		
UTIL-1: Developers of projects under the AGSP shall install recycled water pipelines concurrent with construction of each individual Project. Based upon review of the Project by the City Engineer, the Engineer may waive the requirement that a recycled water line be installed. Such a waiver must be based upon substantial data supplied by the project applicant to justify waiving the requirement that installation of recycled water lines.	City of Highland and/or City of San Bernardino	
UTIL-2: Developers of projects under the AGSP shall, be required to furnish will-serve letters from SoCal Edison to the City within which a given project is proposed prior to approval of the project by the City within which the development is planned.	City of Highland and/or City of San Bernardino	
UTIL-3: Developers of projects under the AGSP shall be required to place electrical distribution lines adjacent to a given project site underground per City regulations.	City of Highland and/or City of San Bernardino	
UTIL-4: The Cities of San Bernardino and Highland, as well as IVDA shall support EVWD's selection of new reservoir and well sites within the AGSP Planning Area.	Inland Valley Development Agency, City of Highland and City of San Bernardino	
UTIL-5: The contract with demolition and construction contractors for each future proposed development within the AGSP shall include the requirement that all materials that can feasibly be recycled shall be salvaged and recycled. This includes, but is not limited to, wood, metals, concrete, road base, asphalt, and demolition materials. The contractor shall submit a recycling plan to the local jurisdiction for review and approval prior to the start of demolition/construction activities to accomplish this objective.	City of Highland and/or City of San Bernardino	
UTIL-6: The contract with demolition and construction contractors for each future proposed development within the AGSP shall include the requirement that soil export, and other construction and demolition hauling activities utilize 15 CY trucks, except where it is infeasible (for example: materials cannot adequately be contained in 15 CY trucks due to bulky size and therefore require a larger size truck to accommodate such materials, etc.), and shall limit truck trips to 50 trucks per day with an average trip length of no greater than 75 miles per trip, roundtrip.	City of Highland and/or City of San Bernardino	

Impact Description	Impact After Mitigation
<p>As described in Subchapter 4.20 of the DEIR, the proposed Project will cause an unavoidable increase in the demand for water, wastewater, recycled water, electric and natural gas utility systems within the Project area. Given that the whole of the AGSP would result in significant impacts, including significant construction and operational air quality and greenhouse gas impacts, development under the AGSP would result in a significant and unavoidable potential to require or result in the relocation or construction of new or expanded stormwater infrastructure, the construction of which would cause a significant impact these various systems are anticipated to accommodate this increased demand with existing facilities without causing an unavoidable significant adverse impact. Furthermore, the development reservoir and well sites may cause significant unavoidable adverse impacts because the ultimate locations of these facilities cannot be determined at this time.</p> <p>Without the implementation of mitigation to ensure that solid waste is recycled and disposed of at the appropriate facilities, development under the AGSP would result in impacts on the area solid waste management systems.</p>	<p>As described in Subchapter 4.20 of the DEIR, the whole of the AGSP would result in significant impacts, including significant construction and operational air quality and greenhouse gas impacts, and as a result, development under the AGSP would result in a significant and unavoidable potential to require or result in the relocation or construction of new or expanded stormwater infrastructure, the construction of which would cause a significant impact these various systems are anticipated to accommodate this increased demand with existing facilities without causing an unavoidable significant adverse impact. Furthermore, while mitigation would require the Cities of Highland and San Bernardino and the IVDA to assist the East Valley Water District (EVWD) with selection of reservoir and well sites that do not result in significant adverse impacts, the ultimate locations of these facilities cannot be determined at this time. As such, it is possible the development of such facilities may cause significant unavoidable adverse impacts. Based on the facts and findings presented in the above analysis, the proposed Project will cause unavoidable significant adverse impacts to City and area water, wastewater, and stormwater infrastructure.</p> <p>Project impacts to landfill capacity from construction and demolition debris were found to be less than significant with the implementation of mitigation to ensure that construction and demolition waste is recycled where feasible. Additionally, solid waste mitigation would minimize the amount of solid waste being hauled on a daily basis in support of individual AGSP projects. With the implementation of the mitigation measures referenced above, AGSP solid waste impacts will remain less than significant. Project impacts related to operational solid waste were also found to be less than significant without mitigation. Based on the facts and findings presented in the above analysis, the proposed Project will not cause unavoidable significant adverse impacts to City and area solid waste management system.</p>

Environmental Category / Avoidance, Minimization and Mitigation Measures		Responsible Agency
WILDFIRE No mitigation measures are required.		
Impact Description	Impact After Mitigation	
As described in Subchapter 4.21 of this DEIR, under the proposed AGSP, due to the location of the AGSP Area being 3 to 5 miles south of the foothills, construction and operation of future projects within the Plan area is well outside of any delineated high fire hazard severity zone. The Wildfire section of this EIR determined that the potential for wildfire to occur within the planning area is low due to the distance of the Planning Area from nearby hills with wildland fire hazards. As such, development under the AGSP would have a minimal potential to experience wildfire hazards, and as such, based on this information, the Project would not cause significant unavoidable adverse impacts under wildfire hazards.	No mitigation is required. Impacts are less than significant.	

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**Table 1.6-1
 TABULAR COMPARISON OF PROJECT ALTERNATIVES**

	<i>Would the Project/Alternative Result in Significant Adverse Impacts to the Resource Issues of ...?</i>			Which Alternative is Environmentally Superior?
	AGSP	No Project Alternative (NPA)	No Project Alternative (NPA2)	
Aesthetics	No	No	No	NPA
Agriculture and Forestry Resources	No	No	No	Alternatives are equal
Air Quality	Yes	No	Yes	NPA
Biological Resources	No	No	No	NPA
Cultural Resources	No	No	No	NPA
Energy	No	No	No	NPA
Geology and Soils	No	No	No	NPA
Greenhouse Gas / Climate Change	Yes	No	Yes	NPA
Hazards and Hazardous Materials	No	No	No	NPA
Hydrology and Water Quality	No	Yes	Yes	AGSP
Land Use / Planning	No	No	No	NPA
Mineral Resources	No	No	No	Alternatives are equal
Noise	Yes	No	No	NPA/NPA2
Population / Housing	No	No	No	NPA
Public Services	No	No	No	NPA
Recreation	No	No	No	NPA
Transportation / Traffic	Yes	No	Yes	NPA
Tribal Cultural Resources	No	No	No	NPA
Utilities and Service Systems	Yes	No	Yes	NPA
Wildfire	No	No	No	Alternatives are equal
<i>Would Meet Project Objectives?</i>	Yes	No	No	-

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CHAPTER 2 – INTRODUCTION

2.1 BACKGROUND

The Inland Valley Development Agency (IVDA or Agency) is a joint powers agency in the west San Bernardino Valley that was created to facilitate redevelopment of the former Norton Air Force Base and the surrounding area. The Airport Gateway Specific Plan (AGSP) represents a long-range plan for the development of the area immediately north of the Airport that functions as the front door to the San Bernardino International Airport, and when adopted will guide all future development proposals and other improvements in the Specific Plan area. This is particularly important because the Specific Plan must be implemented consistently across jurisdictional lines by two separate cities for it to be successful. After conferring, a group of local agencies and stakeholders agreed that the IVDA should assume the lead in managing the preparation of the AGSP and the environmental documentation required to comply with the California Environmental Quality Act (CEQA). The other participating agencies/entities in developing the AGSP include the City of Highland, City of San Bernardino, the San Manuel Band of Mission Indians, and the East Valley Water District (cooperating agencies). These stakeholders have jurisdictional and infrastructure ownership interests in the plan area and have invested significant time and resources in supporting the IVDA to complete the AGSP for the benefit of the region.

The Airport Gateway Specific Plan (AGSP) area is located approximately 60 miles east of Los Angeles just south of the foothills of the San Bernardino Mountains. It is centrally located between three major freeways (the I-210 to the north and east, the I-215 to the west, and the I-10 to the south) and regional attractions including the Loma Linda University and Medical Center (5 miles southwest of plan area), University of Redlands (8 miles southeast of plan area), San Bernardino International Airport (south of and adjacent to the AGSP project area), and commercial shopping destinations in Downtown San Bernardino and the Highland Town Center, both within 3 miles of the plan area (see Figure 3-1, Regional Location).

The 678.13-acre AGSP Plan area is located immediately north of the SBIA and the Plan area extends to the north side of 6th Street except at the southwest and southeast corners of Del Rosa Drive and 6th Street where the plan extends to the north side of 5th Street. The western boundary extends to the center line of Tippecanoe Avenue and the Plan area is bounded by the I-210 Freeway (which is not in the jurisdiction of the proposed AGSP) to the east. The Specific Plan area includes parcels in both the City of Highland (485 acres) and the City of San Bernardino (193 acres), as shown on Figure 3-2, Local Vicinity Map.

Realizing that a significant transition in the area could not occur one project at a time, a primary goal of group discussions held was to facilitate and encourage a potential economic development opportunity that could be beneficial to both cities, the Airport, and existing property owners interested in the transformation of the area. Collectively, the participants determined that the project area would benefit from the preparation and implementation of the AGSP. The following objectives have been established for the proposed project and will aid decision makers in their review of the project, its associated environmental impacts, and the proposed alternatives to the project:

- **Economic Opportunities:** Attract innovative and job-generating businesses that deliver an array of job types (diversity of qualifications, wages and salaries) near the area's residential communities and that can respond to changing demand and market conditions in the future.

- **Infrastructure:** Provide comprehensive infrastructure improvements for water, sewer and stormwater that resolve longstanding flooding and hydrology issues and that are adequately financed to meet future system needs.
- **Distinctive Design and Appearance:** Gateways, corridors and buildings within the Airport Gateway Specific Plan are anticipated to feature landmark design elements, create a memorable visitor experience, and provide a unified sense of identity. Building and roadway treatments in this area command the same level of investment and quality of design as achieved under the adjacent Alliance Specific Plan area.
- **Streetscape Improvements:** Consistent roadway design and improvements, including landscape, monumentation and an integrated, seamless approach to ongoing maintenance across jurisdictional boundaries.
- **Mobility:** Efficiently connect new industrial, office and existing distribution uses to freeway access while providing safe spaces for pedestrians, cyclists, transit, and motor vehicles along 3rd and 5th Streets and gateway nodes. Local businesses support and incentivize bike and car share programs to further support efforts to reduce vehicle miles travelled and greenhouse gas emissions in the region.
- **Integrated Planning:** Collaboration between agencies and property owners occurs on a regular basis to identify catalyst sites to initiate new businesses, to encourage innovative development, and to develop joint solutions to issues that arise within the project area.

Overall, the purpose of developing a specific plan for the Airport Gateway Area is to align local and regional development objectives and implementation efforts for future land use, mobility, and economic development efforts in the multi-jurisdictional plan area.

Based on the preliminary review of the proposed AGSP, IVDA and the cooperating agencies findings concluded that a full scope program Environmental Impact Report (EIR) should be prepared for the AGSP in accordance with the procedure outlined in Section 15060(d) of the State CEQA Guidelines (2022 version). A Notice of Preparation (NOP) was distributed to the public for review and comment on June 17, 2022. The State Clearinghouse assigned the AGSP EIR the following tracking number: SCH# 2022060349 The decision to prepare an EIR was based on the finding that the proposed Project may have one or more significant effects on the existing environment as is documented in the NOP, provided as Subchapter 8.1 of this document.

IVDA has prepared the AGSP Program EIR that evaluates potential broad scope or programmatic environmental impacts that would result from constructing and implementing the AGSP, and limited site-specific issues related to future infrastructure improvements.

2.2 PURPOSE AND USE OF AN EIR

The CEQA was adopted to assist with the goal of maintaining the quality of the environment for the people of the State of California. Compliance with CEQA, and its implementing guidelines, requires that an agency making a decision on a project (defined as a discretionary action that can change the physical environment) must consider its future potential environmental effects/impacts before granting any approvals or entitlements. Further, the State adopted a policy "that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." Thus, an agency, in this case IVDA, must examine feasible alternatives and identify feasible mitigation measures as part of the environmental review process. CEQA also states "that in the event specific economic, social, or other conditions make

infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof." (§21002, Public Resources Code)

When applied to a proposed project, such as the proposed AGSP, the reviewing agency is required to identify the potential environmental impacts of implementing the project; and, where potentially significant impacts are identified, must determine whether there are feasible mitigation measures or alternatives that can be implemented to avoid or substantially lessen significant environmental effects of a project. The first step in this process—determination that an EIR is required and issuance of a NOP—has been completed for the AGSP. Thus, the AGSP constitutes the “project being considered for approval and implementation” by IVDA and the cooperating agencies.

A PEIR has been selected as the appropriate document for compliance with the California Environmental Quality Act (CEQA) based on the definition of a program document contained in Section 15168 of the State CEQA Guidelines which states:

"A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either: (1) Geographically, (2) As a logical part in the chain of contemplated actions, (3) In conjunction with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or (4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways."

The AGSP meets several of the preceding requirements for a program EIR (PEIR). Specifically, the AGSP is geographically connected and integrated with the growth of the community; the AGSP will establish rules, plans and other criteria to guide future development within its boundaries; and future development will occur under the same statutory and regulatory authority and the future development will have generally similar environmental effects that can be mitigated in similar ways. A primary goal of the AGSP is to implement a collaborative effort, intended to provide a regulatory framework for the plan area that includes a comprehensive theme for the corridor, to refine land use and development codes, provides efficient and effective access to freeway corridors, improves infrastructure, including drainage, and develops streetscape and design standards that support opportunities for transition and change within the planning area.

As stated above, the environmental issues that will be analyzed in this PEIR are defined in the standard Initial Study Environmental Checklist Form (Appendix G, State CEQA Guidelines), including: Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils, Greenhouse Gases/Climate Change, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning (Environmental Justice), Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation, Tribal Cultural Systems, Utilities and Service Systems, and Wildfire. Of these issues the following have been identified as having the highest potential to experience potentially significant adverse impacts: Air Quality, Energy, Greenhouse Gases, Hydrology and Water Quality, Land Use and Planning (Environmental Justice), Noise, Transportation, and Utilities And Service Systems.

IVDA prepared and circulated a NOP for the Project. The NOP public review period through the State Clearinghouse began on June 17, 2022 and ended on July 18, 2022. Respondents were requested to submit their input as to the scope and content of environmental information and issues that should be addressed in the AGSP PEIR no later than 30 days after receipt of the NOP.

The NOP was distributed to interested agencies, the State Clearinghouse (SCH), and a list of interested parties compiled by the IVDA and the cooperating agencies. IVDA held a Scoping Meeting on July 7, 2022 at 6 p.m. at the Inland Valley Development Agency: Agency Headquarters, Board Room located at 1601 East 3rd Street, San Bernardino, California (provided as Subchapter 8.2 of this PEIR). The date and location of the scoping meeting were announced in the NOP, and although not required, a legal advertisement announcing the scoping meeting was published in a local newspaper of general circulation prior to the scoping meeting. Eight responses were submitted in response to the NOP. Eleven comments were received at the scoping meeting. Comments are summarized below, and a brief response to each issue organized by environmental topic is provided following the summary of comment received. A copy of each NOP comment letter is provided in Subchapter 8.3. The location where the issues raised in the comments are addressed is described in the following text.

NOP Comment Letter #1 from the Native American Heritage Commission, dated June 17, 2022:

- The Native American Heritage Commission (NAHC) outlines the circumstances in which an EIR must be prepared, and specifically relays that the Lead Agency must determine whether there are historical resources within the project area of potential effects (APE), and whether such resources are significant.
- The lead agency must consult with all Native American tribes that are traditionally and culturally affiliated with the geographic area of a proposed project; the Comment Letter details the AB 52 consultation process.
- The Comment Letter details the provisions of SB 18 and how a lead agency would comply with SB 18.
- The Comment Letter details NAHC recommendations for cultural resource assessments including contacting the appropriate regional archaeological information center for a record search, conducting an archaeological inventory survey if required, and submit report per requirements, contacting the Native American Heritage Commission for a sacred lands file check, as well as suggestions for mitigation to prevent impacts to subsurface resources.

NOP Comment Letter #2 from the South Coast Air Quality Management District, dated July 1, 2022:

- The Comment Letter suggests that the Lead Agency utilize the South Coast Air Quality Management District (SCAQMD) CEQA Air Quality Handbook as guidance in the preparation of the air quality and greenhouse gas analysis.
- The Comment Letter details the types of air quality and greenhouse gas impacts that should be analyzed in the EIR, including the types of emissions that should be quantified in the EIR, including analyzing overlapping operational and construction generated emissions, and performing a mobile source health risk assessment.
- The Comment Letter specifies that the EIR should outline any permits that would be required to be obtained by the Lead Agency or Developers as a result of project operations.
- SCAQMD staff notes concern about potential public health impacts of siting warehouses within close proximity to sensitive land uses, especially in communities already affected by existing warehouse and truck activities.
- The Comment Letter provides information and sites sources indicating that the area surrounding the project has an estimated cancer risk of over 426 in one million, and SCAQMD staff notes concern that the proposed AGSP could result in an even greater risk to the community.

- The Comment Letter outlines the need for mitigating air quality and greenhouse gas emissions, and recommends several specific mitigation measures that should be considered to minimize operational emissions generated by the AGSP, including:
 - Require zero-emissions (ZE) or near-zero emission (NZE) on-road haul trucks;
 - Limit the daily number of trucks allowed at the Proposed Project to levels analyzed in the Final CEQA document;
 - Provide electric vehicle (EV) charging stations or at a minimum, provide the electrical infrastructure;
 - Maximize use of solar energy by installing solar energy arrays;
 - Use light colored paving and roofing materials;
 - Utilize only Energy Star heating, cooling, and lighting devices, and appliances;
 - Use of water-based or low VOC cleaning products that go beyond the requirements of South Coast AQMD Rule 1113;
 - Clearly mark truck routes with trailblazer signs, so that trucks will not travel next to or near sensitive land uses;
 - Design the Proposed Project such that truck entrances and exits are not facing sensitive receptors;
 - Design the Proposed Project such that any check-in point for trucks is inside the Proposed Project site to ensure that there are no trucks queuing outside.
 - Design the Proposed Project to ensure that truck traffic inside the Proposed Project site is as far away as feasible from sensitive receptors; and,
 - Restrict overnight truck parking in sensitive land uses by providing overnight truck parking inside the Proposed Project site.
- The Comment Letter outlines Rule 2305, and its applicability to the proposed project

NOP Comment Letter #3 from the California Department of Fish and Wildlife, dated July 13, 2022:

- The Comment Letter outlines the California Department of Fish and Wildlife's (CDFW) role as a Trustee Agency for fish and wildlife resources, and as a responsible agency under CEQA for specific circumstances, specifically related to regulatory authority and where a project proponent or lead agency may seek take authorization for listed species.
- The Comment Letter provides recommendations that the DEIR include:
 - An assessment of the various habitat types located within the project footprint, as well as a map indicating the above;
 - A general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the project;
 - A complete, recent inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be affected, specifically in reference to the following species:
 - Burrowing owl (*Athene cunicularia*)
 - San Bernardino kangaroo rat (*Dipodomys merriami parvus*)
 - A recent floristic based assessment of special status plants and natural communities;
 - A thorough discussion of the regional setting and project area setting; and,
 - A full accounting of open space and conservation lands within and adjacent to the project area.
- The Comment Letter provides recommendations that the DEIR include the following related to direct, indirect and cumulative impacts to biological resources:
 - A discussion of impacts from lighting, noise, defensible space, and human activity on wildlife-human interactions. Additionally, specifications regarding defensible space

- and the intended use of the vacant land within the AGSP Planning Area should be described;
- A discussion of potential indirect Project impacts on biological resources, including resources in areas adjacent to the project footprint;
 - An evaluation of impacts to adjacent open space lands from both the construction of the Project and any long-term operational and maintenance needs; and,
 - A cumulative effects analysis developed as described under CEQA Guidelines section 15130.
- The Comment Letter requests that the DEIR describe and analyze a reasonable range of alternatives.
 - The Comment Letter indicates a list of recommended mitigations measures, including:
 - A recommendation that the Lead Agency include in the analysis how appropriate avoidance, minimization, and mitigation measures will reduce indirect impacts to fully protected species.
 - A recommendation that the DEIR should include measures to fully avoid and otherwise protect sensitive plant communities from project-related direct and indirect impacts.
 - California Species of Special Concern (CSSC) should be considered during the environmental review process, including, but not limited to: burrowing owl, American white pelican, northern harrier, loggerhead shrike, northwestern San Diego pocket mouse, and yellow warbler.
 - A recommendation that the DEIR specify mitigation that is roughly proportional to the level of impacts, in accordance with the provisions of CEQA by providing long-term conservation value for the suite of species and habitat being impacted by the Project.
 - Restoration objectives should include protecting special habitat elements or re-creating them in areas affected by the Project; examples could include retention of woody material, logs, snags, rocks, and brush piles.
 - A recommendation to ensure protection of nesting birds;
 - A recommendation to require that a CDFW-approved qualified biologist be retained to be onsite prior to and during all ground- and habitat-disturbing activities to move out of harm's way special status species or other wildlife of low or limited mobility that would otherwise be injured or killed from project-related activities; and,
 - A recommendation to disallow use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species.
 - The Comment Letter provides information regarding the California Environmental Species Act (CESA), specifically referencing the CESA-listed species have the potential to occur onsite or have previously been reported onsite: San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*).
 - The Comment Letter provides information regarding the Lake and Streambed Alteration Program (LSA Program) as the design and construction of City Creek Bypass upgrades are likely to notify CDFW per Fish and Game Code section 1602.
 - The Comment Letter provides information regarding the submittal of information to the California Natural Diversity Database (CNDDDB).
 - The Comment Letter provides information regarding CDFW filing fees.

NOP Comment Letter #4 from the San Bernardino Valley Water Conservation District, dated July 15, 2022:

- The Comment Letter indicates that the San Bernardino Valley Water Conservation District owns properties to the east of the AGSP boundary within the Upper Santa Ana River Wash for purposes of groundwater recharge and is the Permittee for the Upper Santa Ana River Wash Habitat Conservation Plan.

- The Comment Letter requests that inclusion and analysis of the Upper Santa Ana River Wash Habitat Conservation Plan in the Biological Resources, Land Use & Planning, and other applicable sections.
- The Comment Letter provides Wash Plan Covered Activities that may apply to the AGSP, and if applicable, the San Bernardino Valley Water Conservation District requests a discussion to be included in the DEIR.
- The Comment Letter offers to share biological data from the Wash Plan.

NOP Comment Letter #5 from the Peoples Collective for Environmental Justice, dated July 18, 2022:

- The Comment Letter described the mission of the Peoples Collective for Environmental Justice (PCEJ), which is fighting environmental racism and eliminating air pollution burdens.
- The Comment Letter raises concerns regarding outreaching and engaging stakeholders on the proposed AGSP and recommends community outreach directly with communities and business owners that live inside the proposed AGSP and that live adjacent to it. The Comment Letter also provides suggestions for the types of outreach that IVDA should consider.
- The Comment Letter suggests that IVDA should hold multiple workshops to break down the project and environmental analysis to members of the community.
- The Comment Letter suggests Spanish notification and informational materials on the project.
- The Comment Letter emphasizes concern that the residents and businesses that would be displaced by the AGSP should be involved in the CEQA process.
- The Comment Letter suggests that IVDA must do a full environmental impact report with appendices that examine the environmental justice impacts, public health impacts and economic impacts.
- The Comment Letter suggests that IVDA look into different land use scenarios, including an option that does not allow for future distribution or warehousing facilities in the area. Another suggestion is that carbon capture projects should be considered under the AGSP.
- The Comment Letter suggests that IVDA create electrification standards for future uses under the AGSP, and also conveys interest in the AGSP creating a Carbon Neutral Plan.
- The Comment Letter suggests that IVDA and the Cities of Highland and San Bernardino create an oversight committee that can negotiate and implement community benefits agreements with the developers and operators of facilities within the AGSP.

NOP Comment Letter #6 from Southern California Association of Governments, dated July 18, 2022:

- The Comment Letter describes the purpose and responsibilities of Southern California Association of Governments (SCAG), specifically SCAG's role in facilitating consistency between future projects and SCAG's adopted regional plans.
- The Comment Letter requests that the DEIR is provided to SCAG staff via email during the public review period.

NOP Comment Letter #7 from Teamsters Local Union No. 1932, dated July 18, 2022:

- The Comment Letter describes the community the Teamsters represent, and indicates the Teamsters role in community ally-ship.

- The Comment Letter expresses that the planning process for the SBIA should treat the airport as a scarce resource, setting high standards for jobs, infrastructure, pollution mitigation, and quality of life for the surrounding areas.
- The Comment Letter recommends that the DEIR contain the following:
 - Mitigation such as: fence line testing of greenhouse gas emissions; energy consumption measuring, reporting, and requirements for renewable energy technology, such as solar panels; flood mitigation; requirements for electrification of fleets associated with vehicle-focused industrial, manufacturing, and logistical uses; a tree planting program to ensure sufficient shade and avoiding creation of intense heat sinks; and, other best practices that go above and beyond minimum requirements;
 - Internal circulation standards that support pedestrian access and bike paths;
 - A study of specific impacts of different types of warehouse and logistical uses, and in particular the different types of vehicles (freight, trucks, commercial vans, passenger vehicles) to be used, and their impact on road wear-and-tear, emissions, and public safety; and,
 - Creation of an oversight committee that can negotiate and implement community benefits agreements with the developers and operators of facilities on the site.
- The Comment Letter explains how community benefit agreements could be used as a tool under future AGSP development. The community benefit agreement process is outlined in the Comment Letter.

NOP Comment Letter #8 from the San Bernardino County Department of Public Works, dated July 19, 2022:

- The Comment Letter describes that the San Bernardino County Flood Control District (Flood Control District) possesses easement and fee-owned right-of-way within and surrounding the perimeter of the AGSP Planning Area, and notes that the AGSP Planning Area is within the Comprehensive Storm Drain Plan (CSDP) No. 6.
- The Comment Letter notes that, when planning for or altering existing or future storm drains, IVDA should be advised that the project is subject to the District's Comprehensive Storm Drain Plan No. 6, dated August 31, 2001. Construction of new or alterations to existing storm drains should be fully evaluated in the DEIR.
- The Comment Letter notes the flood zones within which the AGSP Planning Area lies:
 - FEMA Flood Insurance Rate Map, Panels 06071C8682J; 8701J, dated September 2, 2016, and 06071C8702H, dated August 28, 2008, the Project lies within Zones A, AE, X-shaded (500 yr. floodplain; protected by a levee), X-unshaded, and the Regulatory Floodway.
- The Comment Letter recommends that the Cities of Highland and San Bernardino enforce its most recent regulations for development within a Special Flood Hazard Area (SFHA) and floodplains.
- The Comment Letter notes that any encroachments including, but not limited to access for grading, side drain connections, utilities crossing, street improvements, and channel improvements on the District's right-of-way or facilities will require a permit from the District's prior to start of construction. Additionally, District's facilities built by the Army Corps of Engineers (ACOE) will require the District to obtain approval (408-Permit) from the ACOE. These impacts should be discussed in the DEIR.
- The Traffic Division of the San Bernardino County Flood Control District notes in the Comment Letter the following regarding circulation in the AGSP Planning Area:
 - A portion of properties adjacent to 5th Street are zoned Multi-Family, and additional residences are located within the Limited Industrial zone.

- Future dedication and construction of a 6-Lane Divided Major road (5th Street) will place truck traffic immediately adjacent to the existing residences and may displace residences, and the EIR should specify which cross section listed in the EIR this is referring to.
- The EIR should discuss the existing structural section, which is not constructed to accommodate a 6-Lane Divided Major road with proposed volumes of truck traffic, and provide costs as well as funding mechanism to reconstruct within the EIR.
- Discuss impacts to residents along Del Rosa Drive and Del Rosa Avenue from truck traffic along these roadways.
- Del Rosa Drive currently has insufficient right-of-way to accommodate a 4-Lane Divided Major road, and the EIR should specify which cross section the EIR is referring to.
- The Traffic Impact Study should be provided to the County for its review, and this should include supporting justification for the 2040 roadways segments.
- The County requests to be included on the circulation list for all project notices, public reviews, and public hearings.

Scoping Meeting Speaker Number 1: Andrea

- The speaker suggests workshops should be held throughout the PEIR IVDA process with the community.
 - They asked that the Project Team communicate how many workshops will be held.
- The speaker suggests that Spanish-language notices should be included as well as English ones.
 - They asked what the radius of the notification would be.
- The speaker suggests that fence line NO_x, GHG, DPM tests between industrial and residential uses should be considered, as should monitoring the area for air quality. They suggest a mitigation measure to enforce this concept.
- The speaker suggests that the Project Team communicate the AQ emissions and GHG generated to community.
- Would there be recommendations for buffers between commercial / industrial and industrial / commercial between sensitive uses?
 - Would there be buffering mitigation between uses that would be incompatible?
 - Recommend additional policies (not specific) should be considered for buffering.
 - Doesn't want warehouses next to residential uses.
- The speaker believes that there should be objectives about community safety, reducing emissions, guaranteeing economic opportunities to the residents who live in the Planning Area.
- The speaker suggests reporting requirements for emissions / energy use, and that those reports should be made available to the community.
- The speaker suggests that there should be a requirement for electrification of the area, cars, trucks, buildings. Would there be an electrification plan? They suggest a similar plan that considered 25% electric by 2030, 50% by 2035, etc.
- The speaker suggests tree planting programs.

Scoping Meeting Speaker Number 2: Stephen

- If this was Palm Springs, would we be asking area to be rezoned? Is this being development type considered because this is an impoverished community?
- What happens to the residents who live in this community?
- Can developers use eminent domain?

- Can the Developer threaten the residents to make them leave?
- Where are the majority of the residents located? In Highland or in San Bernardino?
- What is the impact of the houses being relocated on the housing crisis?
- If the purpose of IVDA is to revitalize the community, is the proposed use (Light industrial and commercial), minimum wage jobs meeting this goal? The speaker doesn't believe that the development supported by IVDA has revitalized the community at all.
- The speaker states that warehouses in Moreno Valley were built without access to electricity. Edison suggested it would be several years before the infrastructure would be available for these uses.
- What are the regulations that pertain to backup generators to prevent pollution?
- The speaker suggests that back-up generators should not be allowed and development should not be allowed until electricity is available.
- What are the ramifications of generators being utilized over a period of years until electricity is available to serve them?

Scoping Meeting Speaker Number 3: Lori

- The speaker communicates that the Specific Plan is long, and asks for verification that, as the AGSP goes through the process, it would also go through each of the City's planning commissions.
- The speaker sits on the Jurupa Valley Planning Commission and asks what projects are occurring in the area outside of the specific plan?
 - Asks the Project Team to look at cumulative impacts of implementing this project along with other cumulative projects.
- The speaker asks if each project will go through the Cities as specific development projects?

Scoping Meeting Speaker Number 4: David

- The speaker is a Business Agent for the teamsters.
- The speaker communicates that a majority of residents for Eastgate had no idea what was going to be taking place as a result of that project.
- The speaker re-emphasizes that communication of the Project with residents is important, as they believe that more people would show up with their concerns.

Scoping Meeting Speaker Number 5: Henry Salazar

- In regards to the responses to scoping meeting comments provided in the document, the speaker asks who is going to be answering these questions? Who is it that is giving the okay to put certain things in the document?
- Who has the final say over what goes in the document?
- The speaker mentions job guarantee as a desire.
- Is there a process that has to be followed in order to meet CEQA? What is that process?
- The speaker suggests that no one has taken the initiative to meet with the community, suggests that Fox News and CNN ads should be placed.
- Are the truck routes established and permanent?

Scoping Meeting Speaker Number 6: Mauricio

- Are there plans to inform the residents or plans for the displaced residents?
- Are there any businesses in mind that would occupy the AGSP specific plan area?

- The speaker lists drayage trucks, diesel trucks, and concerns due to the potential emissions, and asks would there be buffer zones?
- What would the buffer zone be?
- Does it state in the EIR/Specific Plan that a goal is to buffer trucks from residents?

Scoping Meeting Speaker Number 7: Yassi

- The speaker suggests that Negative Declarations are barred from use in future tiering efforts, including from parcel consolidation.
- The speaker suggests monthly updates to the community on the project and that IVDA could be the owner of the updates.
- The speaker suggests flexibility to disallow medium and heavy duty industrial development, as they are concerned about those uses. The speaker suggests that impacts from those uses already exist and are hefty.
- Would the document consider mobility initiatives or car sharing?
- The speaker is concerned about truck safety along the truck routes and having trucks that can carry drayage/cargo near commercial and residential properties. The speaker vocalizes additional concerns about obscenities on cargo trucks.
- The speaker suggests that new buildings in the overlay should be electrified, including heat pumps, appliances, and the speaker suggests working with Edison on an assessment. Utilities should be included in the design of the AGSP and individual projects. The speaker expresses that there is a huge opportunity for recycled water, pipe fitters, potential to implement construction jobs with pipe fitting recycled water.
- Community oversight structure is needed housed within the Community herein.
- The speaker recommends Sign-up Sheet Follow up.
- The speaker suggests that Presentations and Project Descriptions should be available in Spanish, as well as notices as.
- The speaker suggests that Health Risk Assessments should be required. The speaker asks what health risks would be exacerbated by this development?
 - The speaker suggests mitigation: electrification, 1,000-foot buffers, and tree canopy.
- The speaker is concerned about possible jobs and livelihood offered to the community? Why are more minimum wage jobs with companies that are multi-national corporations that don't care about the community being invited to this area?
- The speaker states that there is not a fresh food grocery store nearby. How would the AGSP facilitate this?
- The speaker states that there is not a greenspace or indoor recreation facility. How would the AGSP facilitate this?
- The speaker suggests community-based mitigation to increase livelihoods in this area.
- The speaker states that the retrofit jobs provide a livable wage.
- The speaker suggests that the document/Project Team should spell out the requirements regarding wages by the state in the document.

Scoping Meeting Speaker Number 8: Sheena

- The speaker didn't know about this meeting, and believes that better communication should be available to residents.
- The speaker states that trucks blast through red lights every day in the general project area.
- The speaker believes that this project would bring more trucks and more development to an area that has significant traffic already.

- The speaker suggests that notifications should be put on the news, on Facebook, etc. for people who can't read.
- How many people get the Sun newspaper delivered to their house?

Scoping Meeting Speaker Number 9: Sean Martinez

- The speaker provided suggestions for reaching out to the community during the Eastgate project.
- The speaker believes there is a high level of interest in economic development in the community.
- The speaker suggests that a way to reach out to the community would be to knock on doors for residences that would be displaced by this plan as this would let them know what the project would mean for them.
- For most people EIRs are not accessible because of their technical content being at too high of a level.
- The speaker believes there is an opportunity to negotiate and implement Community Benefit Agreements for each of the developments that would occur under the AGSP.
- The speaker communicates that there is a lack of trust between the community and institutions. They believe this project would provide an opportunity to create good will in the community, which will be needed to revitalize this area. They believe that the last 30 years have been a failure to the community as a result of high injury rate jobs and high turn-over jobs, which have not benefitted the community. Working with the community to receive their feedback and implement Community Benefit Agreements would present an opportunity to restore trust.
- The speaker offers to help IVDA and the Cities to implement the community benefit agreements, etc.

Scoping Meeting Speaker Number 10: Jo

- The speaker is looking for community involvement, good jobs, protection of the surrounding houses, mitigation of noise, air issues, traffic.
- Is there a way to talk about the construction materials?
- Can construction materials benefit the community, using materials that sequester CO2?
- The speaker concurs with what everyone else has said
- The speaker believes that San Bernardino has been on a course of tragedy with non-union jobs, poor training, and suggests that this project should ensure that neighborhoods taken care of, noise mitigation should be considered for houses and schools that are adjacent to the project, and that traffic planning as part of the AGSP would benefit the community.
- If this project doesn't actually take place for 10-15 years, is there a follow-on process?

Scoping Meeting Speaker Number 11: Marta

- The speaker suggests that newspapers are not too hip, and that people don't read them anymore. Instead, people are on Facebook and social media. The speaker suggests that IVDA send out the notices as flyers with dates of the hearing and of the workshops.
- The speaker lives in the City of Highland 1.5 miles away
- The speaker suggests that the Project Team get involved and email her and the community, and that her team is happy to get involved.
- The speaker indicates that she believes that the Community is not involved in CEQA and doesn't understand the environmental process. Community organizers are aware of CEQA, but people going about their daily lives aren't aware.

- The speaker suggests that the Project Team should notify the community, and should ask them to provide email addresses to keep updated on the progress of the AGSP.

A brief response to each issue raised is provided below organized by environmental topic.

CEQA Compliance

This header is intended to provide a space for comments that apply to community engagement and the applicability of community engagement as a requirement of the CEQA process. Additionally, this header is intended to provide a space for responses to comments that question the next steps under CEQA for projects proposed under the AGSP.

NOP Comment Letter #5 PCEJ: The Comment Letter raises concerns regarding reaching out and engaging stakeholders on the proposed AGSP and recommends community outreach directly with communities and business owners that live inside the proposed AGSP and that live adjacent to it. The Comment Letter also provides suggestions for the types of outreach that IVDA should consider. The Comment Letter suggests that IVDA should hold multiple workshops to break down the project and environmental analysis to members of the community. The Comment Letter suggests Spanish notification and informational materials on the project.

Response: CEQA Statute 15082 pertains to the Notice of Preparation and Determination of Scope of the EIR. The Notice of Preparation is required to be sent to the Office of Planning and Research and each responsible and trustee agency, and must be filed with the county clerk of each county in which the project will be located. This notice shall also be sent to every federal agency involved in approving or funding the project. CEQA requires that the Notice of Preparation period for an EIR be 30 days in which comments from the public and from federal, state, responsible and trustee agencies. The Scoping Meeting is not necessarily a requirement of CEQA, but for projects of statewide, regional or areawide significance pursuant to Section 15206, the lead agency shall conduct at least one scoping meeting. Notices must be provided to any county or city that borders on a county or city within which the project is located, unless otherwise designated annually by agreement between the lead agency and the county or city; any responsible agency; any public agency that has jurisdiction by law with respect to the project; and, any organization or individual who has filed a written request for the notice.

Under the AGSP, the Notice of Preparation was prepared and submitted to the required agencies on June 17, 2022 (refer to Subchapter 8.1 to this DPEIR, which contains a copy of the Distribution List and Notice of Preparation for the Project). The NOP posting at the San Bernardino County Clerk of the Board can also be found in Subchapter 8.1 to this DPEIR, and the documentation of filing with the Office of Planning and Research can be found under SCH# 2022060349 specifically at the following web address: <https://ceqanet.opr.ca.gov/2022060349>). The NOP and Notice of EIR Scoping was placed in the San Bernardino Sun Newspaper on June 17, 2022, acting as the public notification of the Scoping Meeting.

CEQA Statute 15083 recommends early public consultation, but does not require it. Based on the above, the CEQA process for the AGSP has occurred within the bounds of the Statute. IVDA held private, informal information meetings with members of the community who showed up at the Scoping Meeting in advance of the Scoping Meeting. Here is how the IVDA intends to proceed and/or has gone above and beyond the CEQA requirements in preparation of the DPEIR for the AGSP:

The IVDA will send out a notice, which will include information in Spanish, to property owners and tenants within the AGSP Planning Area. These will be mailed to a quarter-mile radius beyond the AGSP Area boundaries. Notice information will include the circulation of the DEIR, how the public can provide public comment on the DEIR, and information about an open house style meeting at which project staff and technical experts will be available to answer questions that members of the public may have on the AGSP. There will also be a bilingual (Spanish) certified court reporter available to members of the public who can document questions to be included in the DEIR. A professional Spanish interpreter will also be available to assist attendees. Social media content about the meeting and how to provide public comment will also be developed that can be shared on digital platforms by the cities of San Bernardino and Highland as well as organizations and community leaders who serve residents and businesses in the area.

The IVDA will hold an open house style public meeting for AGSP as part of the DEIR process. This will occur during the public review and comment period for the DEIR. The scoping meeting held on July 7, 2022 was the first meeting with the public in which comments were provided for response in the DEIR. IVDA is looking at other opportunities in which it can provide updates about the project with organizations who represent area residents and businesses.

The IVDA is working on additional communications tools and opportunities to help inform the public about the purpose of the Airport Gateway Specific Plan and how the public can be involved in the environmental process. This includes the development of bilingual project materials (Spanish) and notification of upcoming AGSP-related meetings. Additionally, a landing page on the IVDA website for AGSP will be established for ease of finding information about the project. It will include project informational materials, environmental documents associated with the project, project contact information, and information on how the public can provide formal comments to the DEIR. A project database is being developed to send direct mail pieces and electronic communications to area residents, property owners and other people who express interest in receiving project information.

A professional interpreter will be available at future meetings for AGSP.

NOP Comment Letter #8 San Bernardino County Department of Public Works: The County requests to be included on the circulation list for all project notices, public reviews, and public hearings.

Response: The IVDA, City of Highland, and City of San Bernardino will include the San Bernardino County Department of Public Works on future AGSP circulation lists.

Scoping Meeting Speaker #1 Andrea: The speaker suggests workshops should be held throughout the PEIR IVDA process with the community. They asked that the Project Team communicate how many. The speaker suggests that Spanish notices should be included as well as English ones. They asked what the radius of the notification would be.

Response: Please refer to the response under NOP Comment Letter #5 PCEJ, above, which provides a complete response to the concerns raised in this comment.

Scoping Meeting Speaker #3 Lori: The speaker communicates that the Specific Plan is long, and asks for verification that, as the AGSP goes through the process, it would also go through each of the City's planning commissions, specifically asking if each project will go through the Cities as specific development projects.

Response: The Environmental Processes that will be followed are as follows.

First, IVDA would publish the AGSP DEIR for a 45 day circulation period in which the public can comment and provide input on the environmental analysis contained herein.

Second, IVDA would prepare a Final EIR, which would contain a mitigation monitoring and reporting program (MMRP) and responses to comments received during the public review period, in addition to any edits to the Draft EIR that result from comments received during the public review period. IVDA would also prepare a Facts, Findings, and Statement of Overriding Considerations for the IVDA Board Package on the AGSP that would detail the facts and findings herein, in addition to overriding considerations for the IVDA Board to consider as there are significant unavoidable adverse impacts that would result from AGSP implementation. The Final EIR and Facts, Findings, and Statement of Overriding Considerations would be part of the Board Package for consideration of certification by the Board at a public Board Hearing.

If the IVDA certifies the Final EIR and Facts, Findings, and Statement of Overriding Considerations, the initial CEQA process would be complete. However, there would be several follow on actions under CEQA required.

The Third Action would be that each City (San Bernardino and Highland) would need to adopt the Specific Plan as a General Plan Amendment and Zone Changes at a future Public Hearing. Each City may consider modifications to the language in the Specific Plan at this time. As Responsible Agencies under CEQA, the certified Final EIR would be utilized to process the General Plan Amendments and Zone Changes by each City individually.

The Final actions would be that each project proposed under the AGSP would require a separate discretionary action by the City under which a given project is proposed. While this discretionary action may simply be a building permit, each project would be required to go through the formal planning process with the City, ultimately with project-specific permits and/or entitlements possibly granted by City Decisionmakers. Each of the above processes would include and enable public participation.

Scoping Meeting Speaker #4 David (Teamsters): The speaker is a Business Agent for the teamsters. The speaker communicates that a majority of residents for Eastgate had no idea what was going to be taking place as a result of that project. The speaker re-emphasizes that communication of the Project with residents is important, as they believe that more people would show up with their concerns.

Response: Please refer to the response under NOP Comment Letter #5 PCEJ, above, which provides a complete response to the concerns raised in this comment.

Scoping Meeting Speaker #5 Henry Salazar: In regards to the responses to scoping meeting comments provided in the document, the speaker asks who is going to be answering these questions? Who is it that is giving the okay to put certain things in the document? Who has the final say over what goes in the document? Is there a process that has to be followed in order to meet CEQA? What is that process? The speaker suggests that no one has taken the initiative to meet with the community, suggests that Fox News and CNN ads should be placed.

Response: As stated by the Project Team at the Scoping Meeting, the environmental consulting team, with the oversight of IVDA, the City of Highland, and the City of San Bernardino review and

approve the comments prepared, ultimately responds to all questions and comments provided on the EIR. This DEIR has been reviewed and edited closely by IVDA, City of Highland, and City of San Bernardino Staff. Thus, IVDA, the City of Highland, and the City of San Bernardino have collectively agreed and have final say upon the contents found herein. The IVDA does not have land use authority, but the IVDA does have Lead Agency authority under CEQA due to the AGSP being within its jurisdiction. The IVDA can recommend the approval of the Specific Plan analyzed herein to both cities, and the cities would ultimately each independently approve and adopt a General Plan Amendment to enable the implementation of the proposed AGSP.

Please refer to the response under Scoping Meeting Speaker #3 Lori, above, which provides a response to what steps would need to be taken to meet CEQA requirements, which has been raised in this comment. Additionally, please refer to the response under NOP Comment Letter #5 PCEJ, above, which discusses community outreach and how this project has and will continue to communicate with residents and businesses within and adjacent to the AGSP Planning Area

Scoping Meeting Speaker #6 Mauricio: Are there plans to inform the residents or plans for the displaced residents?

Response: Please refer to the response under NOP Comment Letter #5 PCEJ, above, which addresses the action plan for community outreach to residents and businesses within the AGSP Planning Area. The comment on plans for the displaced residents is responded to under “Population and Housing,” in Subchapter 4.15.

Scoping Meeting Speaker #7 Yassi, Sierra Club: The speaker suggests that Negative Declarations are barred from use in future tiering efforts, including from parcel consolidation.

Response: It is unclear whether this speaker is specifically referencing Negative Declarations or is referring to Negative and Mitigated Negative Declarations. Regardless, it is first important to note that all projects proposed under the AGSP will be required to meet the stringent mitigation requirements provided herein, where applicable, regardless of future tiering efforts. It is possible that a future proposal for a small commercial use, for instance, might require tiering, but may not require additional mitigation in order to meet CEQA requirements. In this case, the mitigation provided herein would still apply to the proposed project, but a Negative Declaration could be utilized. CEQA, as a statute, has stringent and specific requirements for tiering and applicability for future projects utilizing tiering (refer to CEQA Statute 15152, Tiering), so, while the IVDA and Cities understand that the speaker does not attribute positive connotations to Negative Declarations, future tiering off of the AGSP EIR would be required to comply with CEQA Statute 15152 and 15162, meeting the applicable requirements for the varied means by which projects can adhere to such requirements, i.e. Categorical Exemptions, Addenda, Negative Declarations, Mitigated Negative Declarations, and Environmental Impact Reports. Thus, the IVDA does not believe it would be appropriate to limit the means by which future CEQA tiering efforts under the AGSP could comply with CEQA, as the protections provided through simply complying with CEQA would, in most cases, involve public hearings in which public comments and participation may be made, and mitigations provided in this DEIR must be adhered to, where applicable, for all future projects under the AGSP.

Scoping Meeting Speaker #7 Yassi, Sierra Club: The speaker suggests monthly updates to the community on the project and that IVDA could be the owner of the updates. The speaker recommends Sign-up Sheet Follow up. The speaker suggests that Presentations, Project Descriptions, and notices should be available in Spanish.

*Response: Please refer to the response under NOP Comment Letter #5 PCEJ, above, which provides a response to the concerns raised in this comment. Sign-up sheet follow up has been considered, and **is planned to be** implemented as part of the outreach efforts for this project beginning with notification of the public circulation of the Draft EIR. Updates to the Sierra Club representative and the Peoples Collective for Environmental Justice representative have been provided periodically leading up to the publication of the DEIR.*

Scoping Meeting Speaker #8 Sheena: The speaker didn't know about this meeting, and believes that better communication should be available to residents. The speaker suggests that notifications should be put on the news, on Facebook, etc. for people who can't read, and asks how many people get the Sun newspaper delivered to their house?

Response: Please refer to the response under NOP Comment Letter #5 PCEJ, above, which provides a response to the concerns raised in this comment. The IVDA has opted to communicate directly with residents and businesses via mailers and filing of required notices. While many people watch the news and utilize Facebook, this type of notification is not required by CEQA, and furthermore is not recognized as a type of notification method that would comply with CEQA. As CEQA is the law under which this document has been prepared, these methods of communication have not been selected for use under the proposed project. Publication in a local newspaper, it should be noted here, is a recognized method by which Lead Agencies can comply with the CEQA notification requirements. Furthermore, the Sun Newspaper, while still a print publication, is also available online at <https://www.sbsun.com/>.

Scoping Meeting Speaker #9 Sean Martinez: The speaker provided suggestions for reaching out to the community during the Eastgate project. The speaker suggests that a way to reach out to the community would be to knock on doors for residences that would be displaced by this plan as this would let them know what the project would mean for them. For most people EIRs are not accessible because of their technical content being at too high of a level.

Response: Please refer to the response under NOP Comment Letter #5 PCEJ, above, which provides a response to the concerns raised in this comment.

Scoping Meeting Speaker #10 Jo: The speaker is looking for community involvement. The speaker concurs with what everyone else has said at the scoping meeting. If this project doesn't actually take place for 10-15 years, is there a follow-on process?

Response: Please refer to the response under NOP Comment Letter #5 PCEJ, above, which provides a response to the concerns regarding community involvement raised in this comment. Additionally, please refer to the response under Scoping Meeting Speaker #3 Lori, above, which provides a response to the concerns regarding the follow-on CEQA process. Effectively, under CEQA an evaluation of whether a future site-specific project fits within the same or nearly the same circumstances as those which were identified under the original CEQA documentation (in this case the AGSP DEIR, and ultimately, the Final EIR), and if circumstances have changed, those changes in circumstances must be identified and evaluated against the specific compliance methods authorized under CEQA to determine the appropriate path forward. This process is called tiering, and is outlined under CEQA Statute 15152. Tiering refers to using the analysis of general matters contained in a broader EIR (such as one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project. Should development under

the AGSP be deferred for 10-15 years, each specific development (regardless of the time elapsed) would be required to adhere to the tiering guidelines, which would determine whether the project is covered under the original EIR, requires follow on analysis in the form of an Addendum, Negative Declaration, Mitigated Negative Declaration, or where new significant impacts are identified, an Environmental Impact Report.

Scoping Meeting Speaker #11 Marta: The speaker lives in the City of Highland 1.5 miles away; they suggest that newspapers are not too hip, and that people don't read them anymore. Instead, people are on Facebook and social media. The speaker suggests that IVDA send out the notices as flyers with dates of the hearing and of the workshops. The speaker suggests that the Project Team get involved and email her and the community, and that her team is happy to get involved. The speaker indicates that she believes that the Community is not involved in CEQA and doesn't understand the environmental process. Community organizers are aware of CEQA, but people going about their daily lives aren't aware. The speaker suggests that the Project Team should notify the community, and should ask them to provide email addresses to keep updated on the progress of the AGSP.

Response: Please refer to the response under NOP Comment Letter #5 PCEJ, above, which provides a response to the concerns raised in this comment. Please also refer to the response under NOP Comment Letter #8, which indicates that the IVDA has opted to communicate directly with residents and businesses via mailers. Please also refer to the response under Scoping Meeting Speaker #7 Yassi, Sierra Club, which outlines the sign-up sheet follow up that has or is planned to occurred in the period of time since the Scoping Meeting.

Project Description

NOP Comment Letter #5 PCEJ: The Comment Letter suggests that IVDA look into different land use scenarios, including an option that does not allow for future distribution or warehousing facilities in the area. Another suggestion is that carbon capture projects should be considered under the AGSP.

Response: IVDA and the Cities of Highland and San Bernardino are considering a Specific Plan that would enable uses that would fall under a Mixed Use Business Park land use as defined in the Specific Plan. This land use would enable a mix of commercial, industrial distribution, industrial, and tech business park. While the Project Description provides assumptions for the square footage of each of these use types, the ultimate mix of what will be developed would be based on the market demand for particular uses. The IVDA understands the commenter's suggestion to disallow distribution or warehousing, but this is not the project that is being proposed. The project purpose is (1) to align local and regional development objectives and implementation efforts for future land use, mobility, and economic development efforts in the multi-jurisdictional plan area, (2) to create a transition area between the Airport and residential land uses to the north of 6th Street, and (3) to provide comprehensive Infrastructure improvements for water, sewer and stormwater that resolve longstanding flooding and hydrology issues, amongst other objectives. IVDA and the Cities of Highland and San Bernardino have selected this mix of land use because (a) much of the area within the City of Highland is already designated for such uses, and (b) these types of uses would be consistent with buffering residential uses away from the adjacent airport, which would ultimately work towards protecting residents of both Cities from the impacts—noise, air quality, traffic, etc.—that occur as a result of being located next to such a use. These impacts are further analyzed throughout their respective subchapters.

The suggestion that carbon capture projects should be considered is noted. This type of use is considered an industrial activity that would fall under the Mixed Use Business Park land use designation as a potentially allowable use. As such, there would be opportunity for such a development to be proposed and considered should there be a market for such a development.

Scoping Meeting Speaker #6 Mauricio: The speaker asks are there any businesses in mind that would occupy the AGSP specific plan area?

Response: At this time, the mix of uses proposed under Table 3-3 in Chapter 3, the Project Description, is an estimate only, as no specific proposals have been put forth under the AGSP at this time. However, the existing projects in process maps and project list are provided as Figures 6.2-1 through 6.2-3.

Scoping Meeting Speaker #7 Yassi: The speaker suggests flexibility to disallow medium and heavy-duty industrial development, as they are concerned about those uses. The speaker suggests that impacts from those uses already exist and are hefty.

The IVDA and cities of Highland and San Bernardino have identified the uses that are allowed under the Specific Plan in Table 4.2, Permitted Uses, provided in the Specific Plan itself. The following uses that could be identified as Medium Duty Industrial or Heavy Duty Industrial include:

- *Manufacturing or fabrication of products from parts already in processed form that do not create smoke, gas, odor, dust, sound, or other objectionable influences to surrounding uses.*
- *Manufacturing or fabrication of products from unprocessed materials. Uses include, but are not limited to metal and plastic processing, pharmaceuticals, cosmetics, and similar.*
- *Outdoor Storage; notes include: Includes equipment, vehicles, trailers, and non-hazardous materials; Shipping container storage (beyond 30 days) shall require the approval of a Conditional Use Permit; and, Subject to applicable screening requirements*
- *Warehousing, including distribution and logistics facilities loading/ unloading and storage areas.*

It is anticipated that Medium and Heavy Duty Industrial uses would be limited in scope, size, and number within the AGSP Planning Area due to the size of lots that would be possible under the AGSP due to the short distance between 3rd Street and 5th Street, and 5th Street and 6th Street, and west of Sterling Avenue, due to the City Creek Bypass bisecting the area between 3rd Street and 5th Street. Thus, while the commenter has suggested limiting these uses, it is anticipated that the size, scope, and number of such uses within the AGSP Planning Area would be limited as a result of the configuration of the planning area. Given that each of the future projects proposed under the AGSP would be required to obtain entitlements from the City within which the individual project is proposed, it is anticipated that this process will ensure that projects with greater impacts as a result of medium or heavy duty industrial operations would disclose such impacts and mitigate them to the greatest extent feasible as required by the City within which the individual project is proposed. Furthermore, each future project proposed under the AGSP would be subject to the stringent mitigation provided herein.

Aesthetics

No Comments on this topic were received.

Agriculture and Forestry Resources

No Comments on this topic were received.

Air Quality

NOP Comment Letter #2 (SCAQMD): The Comment Letter suggests that the Lead Agency utilize the South Coast Air Quality Management District (SCAQMD) CEQA Air Quality Handbook as guidance in the preparation of the air quality and greenhouse gas analysis.

Response: The SCAQMD CEQA Air Quality Handbook was consulted in drafting the technical appendices (Appendices 1 and 6 to Volume 2 of this DPEIR address Air Quality and Greenhouse Gas respectively) and in crafting the environmental analyses for the Air Quality and Greenhouse Gas (GHG) Subchapters (4.4 and 4.9).

NOP Comment Letter #2 (SCAQMD): The Comment Letter details the types of air quality and greenhouse gas impacts that should be analyzed in the EIR, including the types of emissions that should be quantified in the EIR, including analyzing overlapping operational and construction generated emissions, and performing a mobile source health risk assessment.

Response: The emissions were calculated and compared against the significance thresholds referenced in the comment letter. Overlapping construction and operational emissions have not been quantified as suggested in the comment letter. This is because IVDA believes it would be speculative to craft a construction scenario in correlation with an operational scenario when no specific projects have been put forth under the AGSP at this time. Essentially, in crafting such a combined scenario, there would be no correlation with reality when, if approved, specific development under the AGSP is proposed. Future developers and operators of facilities within the AGSP would be required to perform project-specific Air Quality and Greenhouse Gas analyses that would determine whether a given project falls under the assumptions provided in the project description for construction and operations, and the assumptions provided under the Air Quality and Greenhouse Gas (GHG) Subchapters (4.4 and 4.9). Second tier environmental documentation would be required where a future project under the AGSP does not fall under these assumptions.

*A mobile source health risk assessment, similar to the discussion above regarding analyzing construction and operational emissions concurrently, has not been conducted as part of this DEIR. This is, again, because in crafting a future mobile source health risk assessment (HRA), a scenario would need to be crafted that would have no bearing on reality, if approved, specific development under the AGSP is proposed. For instance, the HRA would require assumptions as to the specific locations of sensitive receptors in relation to mobile sources within the AGSP Planning Area. While it is assumed that residences north of 6th Street will remain in place, it would be speculative to determine where residences would remain within the AGSP Planning Area at a given moment in time as future development is proposed under the AGSP. Thus, the Air Quality Impact Analysis under Subchapter 4.4 relies on the implementation of MM **AQ-15**, which would require that, during each City's review process for individual project applications within the Specific Plan, projects that generate more than 100 diesel truck trips per day or projects that generate other toxic air contaminants (TACs) within a 100 foot buffer of the nearest sensitive receptor, shall submit a health risk assessment (HRA) to the City prior to future discretionary project approval.*

NOP Comment Letter #2 (SCAQMD): The Comment Letter specifies that the EIR should outline any permits that would be required to be obtained by the Lead Agency or Developers as a result of project operations.

*Response: The AGSP does not, at this time, propose any specific development within the Planning Area. As such, it would be speculative to determine the types of permits that would be required by future projects proposed under the AGSP, as the specific operational parameters have not yet been identified. Where future projects under the AGSP require permits from SCAQMD to operate specific types of equipment and processes, the developers/operators will be required to obtain such permits; this is enforced via MM **AQ-43**.*

NOP Comment Letter #2 (SCAQMD): SCAQMD staff notes concern about potential public health impacts of siting warehouses within close proximity to sensitive land uses, especially in communities already affected by existing warehouse and truck activities; and, the Comment Letter provides information and sites sources indicating that the area surrounding the project has an estimated cancer risk of over 426 in one million, and SCAQMD staff notes concern that the proposed AGSP could result in an even greater risk to the community.

*Response: The comment is noted. An objective of the proposed project is to create a transition area between the Airport and residential land uses. Furthermore, as stated previously, MM **AQ-15**, would the preparation of an health risk assessment (HRA) prior to future discretionary project approval for projects over the identified threshold. The IVDA believes that this is sufficient to ensure that public health impacts are identified, and mitigation is enforced (refer to MM **AQ-15** under Subchapter 4.4) to reduce potential cancer and non-cancer risks to an acceptable level.*

NOP Comment Letter #2 (SCAQMD): The Comment Letter outlines the need for mitigating air quality and greenhouse gas emissions, and recommends several specific mitigation measures that should be considered to minimize operational emissions generated by the AGSP, including:

- Require zero-emissions (ZE) or near-zero emission (NZE) on-road haul trucks;

*Response: MM **AQ-11** requires the use of ZE or NZE trucks, if and when feasible, and establishes a minimum requirement of utilization of 2010 or newer haul trucks for future development. The MM also sets the following parameters: Once required to comply with State law, or otherwise comply with SCAQMD Rules, ZE and NZE on-road haul trucks shall be mandatory for use by future AGSP Development; until this point, the use of ZE and NZE on-road haul trucks shall be required once such vehicles are readily available, and comparable in cost (within a 20% margin) to new non-ZE/NZE on-road haul trucks. The IVDA has utilized these parameters to ensure that future development within the AGSP is able to meet State and Local regulations pertaining to air quality, while also ensuring that the mitigation is not constrained to the point at which development under the mitigation constraints becomes prohibitive to the development itself.*

- Limit the daily number of trucks allowed at the Proposed Project to levels analyzed in the Final CEQA document;

Response: The daily number of trucks allowed under the AGSP sets a threshold under which future site-specific second tier CEQA evaluation must fall under, or otherwise the site-specific second tier evaluation must evaluate the impacts from the increased daily trips beyond that which has been identified under this analysis (refer to Subchapter 4.18, Transportation). Future site-specific development must be approved by the City within which the development is proposed, and the decision-making body will determine whether proposals that generate greater daily truck trips than analyzed herein are acceptable under the respective jurisdiction's Municipal Codes, General Plans, and other regulations therein.

- Provide electric vehicle (EV) charging stations or at a minimum, provide the electrical infrastructure;

*Response: MM **AQ-17** requires the minimum number of automobile electric vehicle (EV) charging stations required by the California Code of Regulations (CCR) Title 24 to be provided, and electrical infrastructure sufficiently sized to accommodate the potential installation of additional auto and truck EV charging stations shall be provided. Additionally, MM **AQ-17** requires final Project designs to provide for installation of conduit in tractor trailer parking areas for the purpose of accommodating potential installation of EV truck charging stations. MM **AQ-35** requires coordination with Edison to install EV Charging Stations incrementally over the life of the project.*

- Maximize use of solar energy by installing solar energy arrays;

*Response: MM **GHG-1** requires the construction of future buildings over 50,000 SF in size to be solar or other clean energy technology compatible, and clean energy ready. Each AGSP Development shall prepare new structures greater than to provide either a solar photovoltaic panel system or other clean energy systems within 2 years of commencing operations.*

- Use light colored paving and roofing materials;

*Response: MM **AQ-34** requires the use of light colored paving and roofing materials.*

- Utilize only Energy Star heating, cooling, and lighting devices, and appliances;

*Response: MM **AQ-40** requires that future AGSP Development utilize only Energy Star heating, cooling, and lighting devices, and appliances.*

- Use of water-based or low VOC cleaning products that go beyond the requirements of South Coast AQMD Rule 1113;

*Response: MMs **AQ-2**, **AQ-26**, and **AQ-34** pertain to VOC mitigation. MM **AQ-34** requires future AGSP Developments to utilize water-based or low VOC cleaning products. MM **AQ-26** requires future AGSP Developments to comply with South Coast Air Quality Management District Rule 1113 – Architectural Coatings, and MM **AQ-2**, requires future AGSP Developments to utilize “Super-Compliant” low VOC paints which have been reformulated to exceed the regulatory VOC limits put forth by SCAQMD’s Rule 1113. Super-Compliant low VOC paints shall be no more than 10g/L of VOC. Alternatively, Future AGSP Development may utilize building materials that do not require the use of architectural coatings. These measure apply to all future projects under the AGSP.*

- Clearly mark truck routes with trailblazer signs, so that trucks will not travel next to or near sensitive land uses;

*Response: MM **AQ-36** requires trucks to utilize truck routes identified in the Airport Gateway Specific Plan. In order to enforce this requirement, truck routes will be clearly marked with trailblazer signs, so that trucks will not enter residential areas.*

- Design the Proposed Project such that truck entrances and exits are not facing sensitive receptors;

*Response: MM **HAZ-1** would require all routine large truck access to industrial projects constructed between 5th and 6th Streets shall be from 5th Street, which would minimize potential conflicts with residential uses along 6th Street. This is the primary location at which sensitive receptors would be located within the AGSP upon build-out of the Planning Area.*

- Design the Proposed Project such that any check-in point for trucks is inside the Proposed Project site to ensure that there are no trucks queuing outside.

*Response: MM **AQ-3** would require that diesel engines are not allowed to idle in excess of 5 minutes, which would minimize the potential for queuing outside of a given project site. Furthermore, MM **AQ-41** would require future development under the AGSP to be designed to require internal check-in points for trucks to minimize queuing outside of the project site.*

- Design the Proposed Project to ensure that truck traffic inside the Proposed Project site is as far away as feasible from sensitive receptors; and,

*Response: MM **HAZ-1** would require that 6th Street mostly be designated for local deliveries only. Specific design guidelines for new industrial buildings fronting on 6th Street shall incorporate buffers to reduce potential conflicts between the industrial uses that are south of 6th and residential uses north of this roadway. All routine large truck access to industrial projects constructed between 5th and 6th Streets shall be from 5th Street. Buffering techniques along 6th Street may include the following: dense landscape buffering; use of landscaped berms and short walls with articulation; and other designs acceptable to the city with land use jurisdiction.*

- Restrict overnight truck parking in sensitive land uses by providing overnight truck parking inside the Proposed Project site.

*Response: On street parking is prohibited within much of the AGSP Planning Area already. This is the case along Waterman Avenue, Tippecanoe Avenue, Victoria Avenue, Central Avenue. MM **TRAN-6** requires future projects under the AGSP to incorporate truck parking lots within or near the AGSP Planning Area to allow for truck queuing. Additionally, this MM prohibits on-street truck parking along 6th Street, which would ensure that sensitive land uses are not impacted by truck parking and idling.*

NOP Comment Letter #2 (SCAQMD): The Comment Letter outlines Rule 2305, and its applicability to the proposed project.

Response: Please refer to the discussions under Subchapter 4.4, Air Quality under Subsection 4.4.2.3, Regional Regulations, Rule 2305 and under the analysis provided under issue AQ-1, under Subsection 4.4.6.3, Potential Impacts. This issue is discussed and analyzed therein.

NOP Comment Letter #5 PCWJ: The Comment Letter suggests that IVDA create electrification standards for future uses under the AGSP, and also conveys interest in the AGSP creating a Carbon Neutral Plan.

*Response: Refer to Subchapter 4.4, Air Quality. MM **AQ-11** would require the use of electric or alternative fueled construction equipment where technically feasible and/or commercially available; MM **AQ-12** requires the use of use zero emission (ZE) or near-zero emissions (NZE) trucks, if and when feasible; at a minimum, future development shall be required to use 2010 and newer haul trucks (e.g., including material delivery trucks and soil import/export, and trucks*

required for operation). Once required to comply with State law, or otherwise comply with SCAQMD Rules, ZE and NZE on-road haul trucks shall be mandatory for use by future AGSP Development; until this point, the use of ZE and NZE on-road haul trucks shall be required once such vehicles are readily available, and comparable in cost (within a 20% margin) to non-ZE/NZE on-road haul trucks. MM **AQ-18** requires the minimum number of EV charging stations required by the California Code of Regulations (CCR) Title 24 shall be provided and for the development to include electrical infrastructure sufficiently sized to accommodate the potential installation of additional auto and truck EV charging stations. MM **AQ-19** requires final Project designs to provide for installation of conduit in tractor trailer parking areas for the purpose of accommodating potential installation of EV truck charging stations. MM **AQ-22** requires all on-site outdoor cargo-handling equipment (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) and all on-site indoor forklifts will be powered by electricity. MM **AQ-37** requires landscaping contractor(s) that uses electric landscaping equipment, if contactors with electric equipment are feasible to retain within the immediate project area. MM **AQ-28** requires electric or alternatively fueled sweepers. Under Subchapter 4.9, Greenhouse Gas, MM **GHG-1**, requires future buildings over 50,000 SF to be solar or other clean energy technology compatible, and clean energy ready, and new structures to provide either a solar photovoltaic panel system or other clean energy systems within 2 years of commencing operations. Additionally, MM **GHG-2** requires that, for future AGSP developments with more than 10 employees or more than 10 company vehicles, a GHG Emissions Reduction Plan (ERP) shall be submitted to the pertinent City for review and approval. This ERP can include energy source reductions, additional EV charging stations, use of electric vehicles, etc.

Based on the above, while the AGSP does not require full “electrification” of future AGSP developments, many aspects of each future development under the AGSP will be required to be electric. In regards to a carbon neutral plan, this concept has been reviewed by the AGSP Project Team, in particular by the Cities of San Bernardino and Highland, and at this time, a plan of this type has been deemed not feasible given that no specific future development under the AGSP has been proposed, and that a plan of this type would not be feasible to impose as a blanket measure for all future development under the AGSP.

NOP Comment Letter #7 Teamsters: The Comment Letter recommends that the DPEIR contain the following: Mitigation such as, fence line testing of greenhouse gas emissions; energy consumption measuring, reporting, and requirements for renewable energy technology, such as solar panels; flood mitigation; requirements for electrification of fleets associated with vehicle-focused industrial, manufacturing, and logistical uses; a tree planting program to ensure sufficient shade and avoiding creation of intense heat sinks; and, other best practices that go above and beyond minimum requirements; A study of specific impacts of different types of warehouse and logistical uses, and in particular the different types of vehicles (freight, trucks, commercial vans, passenger vehicles) to be used, and their impact on emissions.

*Response: Please refer to the response to NOP Comment Letter #5 PCWJ, above, as the issue of renewable energy technology and electrification of fleets are fully addressed therein. Subchapter 4.4, Air Quality, identifies MM **AQ-39**, which would require future development under the AGSP to maximize the planting of drought resistant trees in landscaping and parking lots and when/if recycled water becomes available in the future, landscaping shall be supported by this alternative source of water supply. While a tree planting program has not been considered, IVDA believes that this measure is sufficient to ensure that the area does not experience intense heat sinks and maximizes the planting of, appropriately given the sources of water available, drought tolerant trees. Given the buffering that would be created through MM **HAZ-1**, discussed above*

*under NOP Comment Letter #2 (SCAQMD), the creation of fence line testing is not anticipated to be necessary to protect the community from the health effects of AGSP generated emissions. This is further bolstered by MM **AQ-15**, which requires that, during each City's review process for individual project applications within the Specific Plan, projects that generate more than 100 diesel truck trips per day or projects that generate other toxic air contaminants (TACs) within a 100 foot buffer of the nearest sensitive receptor, shall submit a health risk assessment (HRA) to the City prior to future discretionary project approval. This measure stipulates that if the HRA shows that the incremental cancer risk of an individual Project exceeds 10 in 1 million or the appropriate noncancer hazard index exceeds 1.0, the individual Project's will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Thus, IVDA believes that this measure would ensure that the necessary minimization of health risk would be ensured through the implementation of this measure, ultimately serving as a sort of buffering measure in and of itself, as it would prevent future projects from emitting and contributing to cancer risk or noncancer health risk over the identified thresholds.*

The Air Quality, Energy, and GHG Impact Analyses provided as Appendices 1, 4, and 6 of Volume 2 to this DPEIR each assess the impacts of an intensive mix of uses under the AGSP. The mix of uses and assumptions thereof are provided in Table 3-3 in Chapter 3, the Project Description. Given that many of the mitigation measures that have been provided to reduce mobile source emissions were not attributed to the emissions modeling calculations, the emissions reduction from implementation of the extensive air quality emissions reduction and GHG emissions reduction measures found in Subchapters 4.4 and 4.9 would ensure emissions reductions that go beyond the minimum requirements. The Air Quality, Energy, and GHG Impact Analyses provided as Appendices 1, 4, and 6 of Volume 2 to this DPEIR serve as the technical reports providing the estimated emissions generated from mobile sources listed in this comment on the environment as a result of implementation of the AGSP.

Scoping Meeting Speaker #1 Andrea: The speaker suggests that fence line NO_x, GHG, DPM tests between industrial and residential uses should be considered, as should monitoring the area for air quality. They suggest a mitigation measure to enforce this concept.

Response: Please refer to the response to NOP Comment Letter #7 Teamsters, above, as the issue of feasibility of fence line testing is fully addressed therein.

Scoping Meeting Speaker #1 Andrea: The speaker suggests that the Project Team communicate the AQ emissions and GHG generated to community. The speaker suggests reporting requirements for emissions / energy use, and that those reports should be made available to the community.

Response: Please refer to the response to NOP Comment Letter #7 Teamsters, above, as the issue of feasibility of fence line testing and reporting is addressed therein.

Scoping Meeting Speaker #1 Andrea: The speaker asks, would there be recommendations for buffers between commercial / industrial and industrial / commercial between sensitive uses?

- The speaker asks would there be buffering mitigation between uses that would be incompatible?
- The speaker recommends additional policies (not specific) should be considered for buffering.

- The speaker doesn't want warehouses next to residential uses.

*Response: As stated under the response to SCQAMD above, MM **HAZ-1** would require that 6th Street mostly be designated for local truck deliveries only. Specific design guidelines for new industrial buildings backing on 6th Street shall incorporate buffers to reduce potential conflicts between the industrial uses that are south of 6th and permanent residential uses north of this roadway. All routine large truck access to industrial projects constructed between 5th and 6th Streets shall be from 5th Street. Buffering techniques along 6th Street may include the following: dense landscape buffering; use of landscaped berms; short walls with articulation; and other designs acceptable to the city with land use jurisdiction.*

*It appears that one of the main intents behind the buffering concern is the potential health risks associated with developing industrial uses in close proximity to sensitive receptors/sensitive uses. As such, please refer to the mitigation requirement, MM **AQ-15** requires that, during each City's review process for individual project applications within the Specific Plan, projects that generate more than 100 diesel truck trips per day or projects that generate other toxic air contaminants (TACs) within a 100 foot buffer of the nearest sensitive receptor, shall submit a health risk assessment (HRA) to the City prior to future discretionary project approval. This measure stipulates that if the HRA shows that the incremental cancer risk of an individual Project exceeds 10 in 1 million or the appropriate noncancer hazard index exceeds 1.0, the individual Project's will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Thus, IVDA believes that this measure would ensure that the necessary minimization of health risk would be ensured through the implementation of this measure, ultimately serving as a sort of buffering measure in and of itself, as it would prevent future projects from emitting and contributing to cancer risk or noncancer health risk over the identified thresholds.*

Scoping Meeting Speaker #1 Andrea: The speaker suggests that there should be a requirement for electrification of the area, cars, trucks, buildings. Would there be an electrification plan? The speaker suggests a similar plan that considered 25% electric by 2030, 50% by 2035, etc.

Response: Please refer to the response to NOP Comment Letter #5 PCWJ, above, as the issue of electrification is fully addressed therein.

Scoping Meeting Speaker #1 Andrea: The speaker suggests tree planting programs.

Response: Please refer to the response to NOP Comment Letter #7 Teamsters, above, as the issue of tree planting programs are fully addressed therein.

Scoping Meeting Speaker #2 Stephen: The speaker asks, what are the regulations that pertain to backup generators to prevent pollution?

Response: According to SCAQMD "All internal combustion engines (ICEs) greater than 50 brake horsepower (bhp) and gas turbines greater than 2,975,000 British thermal units (Btu) per hour are required to obtain a permit to construct from the South Coast AQMD prior to installation of the engines at a site. Most of the existing emergency backup generators use diesel as fuel. Emissions of Nitrogen Oxides (NOx) from diesel-fired emergency engines are 200 to 600 times greater, per unit of electricity produced, than new or controlled existing central power plants fired on natural gas. Diesel-fired engines also produce significantly greater amounts of fine particulates and

toxics emissions compared to natural gas fired equipment. NOx is a primary component of smog. Engines operated on fuels other than diesel, such as natural gas, ethanol, propane or with dual fuels (diesel only for initial start-up and then primarily natural gas) are much cleaner and produce significantly less air pollution for the same amount of energy produced.”¹ Thus, depending on the type of generator utilized, utilizing backup generators over a period of years would potentially increase air quality/greenhouse emissions.

Scoping Meeting Speaker #6 Mauricio: The speaker lists drayage trucks, diesel trucks, and concerns due to the potential emissions, and asks would there be buffer zones? The speaker asks what would the buffer zone be?

*Response: Please refer to the response under Scoping Meeting Speaker #1 Andrea, above, as this comment addresses the concern for buffering and health risks. The concerns raised regarding drayage trucks, diesel trucks and emissions generated thereof, the discussion regarding health risk above would essentially ensure that measures are put in place to reduce DPM and other TACs. Though MM **AQ-15** does not specifically limit drayage and diesel trucks, effectively the health risks generated by the use of such vehicles would be required to be reduced. Furthermore, MM **AQ-13** and **AQ-15** require localized significance thresholds, which are used to determine emissions impacts on proximal sensitive receptors, would be required, further providing decisionmakers with the necessary data to determine whether future site-specific projects should be approved under the AGSP. The MMs provided under Subchapters 4.4, Air Quality and 4.4 Greenhouse Gas, that apply to trucks and reducing emissions thereof, including buffering mitigations, include the following additional measures: MMs **AQ-12**, **AQ-16**, **AQ-18**, **AQ-19**, **AQ-22**, **AQ-25**, **AQ-28**, **AQ-36**, **AQ-41**, and **GHG-2**.*

Scoping Meeting Speaker #7 Yassi: The speaker asks: Would the document consider mobility initiatives or car sharing?

*Response: Yes, it does. MM **GHG-2** requires future AGSP developments with more than 10 employees or more than 10 company vehicles to submit a GHG Emissions Reduction Plan (ERP) to the pertinent City for review and approval. This ERP may include Implementation of Ride Sharing Program (Mobile Source); Maintenance of an onsite bicycle sharing program (Mobile Source); Establishment and support of a mass transit use program (including adjusting hours of operations to complement local mass transit operations, Mobile Source); and, Provision of secure bicycle parking facilities (Mobile Source). Furthermore, MM **TRAN-8** which addresses Vehicle Miles Traveled (VMT) reduction measures, including mobility initiatives, pedestrian network improvements, car-sharing programs, telecommuting, and enhanced bike parking.*

Scoping Meeting Speaker #7 Yassi: The speaker suggests that new buildings in the overlay should be electrified, including heat pumps, appliances, and the speaker suggests working with Edison an on assessment.

Response: Please refer to the response to NOP Comment Letter #5 PCWJ, above, as the issue of electrification is addressed therein.

Scoping Meeting Speaker #7 Yassi: The speaker suggests that Health Risk Assessments should be required. The speaker asks what health risks would be exacerbated by this development?

¹ <http://www.aqmd.gov/home/permits/emergency-generators#Fact2>

*Response: Please note that due to the speculative nature of the assumptions that would be required to generate a health risk assessment for a specific plan of this type, one has not been prepared. Given that there are no specific development proposals, and no specific locations in which development might occur in the near- and short- term, it would be speculative to determine the locations of sensitive receptors throughout the AGSP planning horizon. The response under Scoping Meeting Speaker #1 Andrea, above, addresses the concern for health risk analysis requirements, as in many cases, project specific HRAs would be required through the implementation of MM **AQ-15**.*

Scoping Meeting Speaker #7 Yassi: The speaker suggests mitigation: electrification, 1,000-foot buffers, and tree canopy.

Response: Please refer to the response under Scoping Meeting Speaker #1 Andrea, above, as this comment addresses the concern for buffering and health risks. Please refer to the response to NOP Comment Letter #7 Teamsters, above, as the issue of tree planting programs are fully addressed therein.

Scoping Meeting Speaker #10 Jo: The speaker is looking for mitigation of air issues.

*Response: Please refer to Subchapter 4.4, Air Quality. Mitigation measures **AQ-1** through **AQ-41**, in addition to MMs **GHG-1** and **GHG-2** address air and GHG emissions reductions.*

Scoping Meeting Speaker #10 Jo: The speaker asks: Is there a way to talk about the construction materials? Can construction materials benefit the community, using materials that sequester CO₂?

Response: To the IVDA's knowledge the known practice of utilizing construction materials that are reclaimed, or "green" is already a part of the Leadership in Energy and Environmental Design (LEED) certification process. LEED is a green building rating system administered by the US Green Building Council (USGBC). While IVDA considers future LEED certified development desirable, CEQA Guidelines Sections 15040(b), 15041, and 15091 collectively provide that mitigation measures must be within the responsibility and jurisdiction of the Lead Agency in order to be implemented. To require a certain portion of future development under the AGSP to seek or obtain LEED certification would, in the Decision Makers opinion, render meeting the objectives of the proposed Specific Plan, infeasible, and the Decision Makers do not have the authority to impose LEED certification on future private development on privately owned parcels. Thus, no feasible mitigation measures are available for the IVDA, City of San Bernardino, or City of Highland to enforce that have a proportional nexus to the project's level of impact, and a requirement for specific construction materials to be utilized for future AGSP Development has been determined to be infeasible.

Biological Resources

NOP Comment Letter #3 CDFW: The Comment Letter outlines the California Department of Fish and Wildlife's (CDFW) role as a Trustee Agency for fish and wildlife resources, and as a responsible agency under CEQA for specific circumstances, specifically related to regulatory authority and where a project proponent or lead agency may seek take authorization for listed species. The Comment Letter provides recommendations that the DPEIR include:

- An assessment of the various habitat types located within the project footprint, as well as a map indicating the above;

- A general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the project;
- A complete, recent inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be affected, specifically in reference to the following species:
 - Burrowing owl (*Athene cunicularia*)
 - San Bernardino kangaroo rat (*Dipodomys merriami parvus*)
- A recent floristic based assessment of special status plants and natural communities;
- A thorough discussion of the regional setting and project area setting; and,
- A full accounting of open space and conservation lands within and adjacent to the project area.

Response: The purpose of the two Biological Resources Assessments (BRA) was to address potential effects of the Project to designated critical habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) or species designated as sensitive by the California Department of Fish and Wildlife (CDFW) and/or the California Native Plant Society (CNPS). Jericho assessed the open lands within the AGSP project area for sensitive species with attention focused on those State- and/or federally-listed as threatened or endangered species and California species of special concern that have been documented in the project vicinity and/or whose habitat requirements are present within the vicinity of the project site. These reports can be found within Appendix 2, of Volume 2 of this DPEIR, and the analysis thereof can be found within Subsection 4.5, Biological Resources.

Under the AGSP the City Creek natural channel will remain Open Space with no proposed development or disturbance associated with the Specific Plan, and the Business Park and Industrial sections will be solidified as designated in all other areas east to the 210 Freeway and south to 3rd Street.

NOP Comment Letter #3 CDFW: The Comment Letter provides recommendations that the DEIR include the following related to direct, indirect and cumulative impacts to biological resources:

- A discussion of impacts from lighting, noise, defensible space, and human activity on wildlife-human interactions. Additionally, specifications regarding defensible space and the intended use of the vacant land within the AGSP Planning Area should be described;
- An evaluation of impacts to adjacent open space lands from both the construction of the Project and any long-term operational and maintenance needs; and,

Response: The Specific Plan area is not considered an established wildlife movement corridor or nursery site for native or migratory wildlife, because the area does not connect two or more significant habitat areas and the area is not a major feature influencing the local plant and small mammal communities. The AGSP will not create any shift in native habitat use by wildlife, alter population dynamics, or change the local species compositions. Mitigation is required to protect nesting birds as there is habitat for nesting birds and foraging raptors in the ornamental trees, California pepper trees and Eucalyptus trees found in the Planning Area.

The vacant land within the AGSP excluding ROW and floodway is about 243 acres (refer to Table 3-1). This is land that is intended for development under both the 0065ising City General Plans and the AGSP, not land that would be reserved for conservation land. The project area is not suitable for supporting biological resource conservation due to the urban nature of the Planning Area and

surrounding land uses. As stated above, under the AGSP the City Creek natural channel will remain Open Space, and the Business Park and Industrial sections will be solidified as designated in all other areas east to the 210 Freeway and south to 3rd Street.

- A discussion of potential indirect Project impacts on biological resources, including resources in areas adjacent to the project footprint;

*Response: This discussion can be found under Subsection 4.6.5, Environmental Impacts under Subchapter 4.5, Biological Resources, specifically under issue **BIO-1**. MM **BIO-1** is recommended to minimize and avoid potential impacts to BUOW. Also, to minimize potential loss of San Bernardino kangaroo rat (SBKR) or California gnatcatcher (CAGN), MM **BIO-2** shall be implemented.*

- A cumulative effects analysis developed as described under CEQA Guidelines section 15130.

Response: Cumulative impacts pertaining to biological resources can be found under Subsection 4.5.8 of Subchapter 4.5, Biological Resources.

NOP Comment Letter #3 CDFW: The Comment Letter requests that the DEIR describe and analyze a reasonable range of alternatives.

Response: Biological Resource impacts are analyzed for each of the Alternatives that have been identified by IVDA and AGSP responsible agencies. Please refer to Chapter 5, Alternatives for a discussion of the project alternatives.

NOP Comment Letter #3 CDFW: The Comment Letter indicates a list of recommended mitigations measures, including:

- A recommendation that the Lead Agency include in the analysis how appropriate avoidance, minimization, and mitigation measures will reduce indirect impacts to fully protected species.

*Response: The proposed project requires mitigation—MM **BIO-2**—to address the potential for SBKR and CAGN within the areas of the AGSP that contain suitable habitat to support such species.*

- A recommendation that the DEIR should include measures to fully avoid and otherwise protect sensitive plant communities from project-related direct and indirect impacts.

Response: No suitable environment for these species occurs within the Specific Plan area and the local Riversidean alluvial fan sage scrub (RAFSS) or riparian habitats are outside of the Specific Plan area envelope. The analysis and substantiation pertaining to this issue can be found under Subsection 4.6.5, Environmental Impacts under Subchapter 4.5, Biological Resources, specifically under issue BIO-1.

- California Species of Special Concern (CSSC) should be considered during the environmental review process, including, but not limited to: burrowing owl, American white pelican, northern harrier, loggerhead shrike, northwestern San Diego pocket mouse, and yellow warbler.

*Response: Suitable habitat for burrowing owl (BUOW) within the vacant parcels and the City Creek Bypass Channel exists. Thus, MM **BIO-1** shall be implemented to ensure that impacts to this species are minimized. None of the remaining species listed in the above comment have a potential to exist within the project.*

- A recommendation that the DEIR specify mitigation that is roughly proportional to the level of impacts, in accordance with the provisions of CEQA by providing long-term conservation value for the suite of species and habitat being impacted by the Project.

Response: Please refer to the mitigation measures and substantiation as to why such measures are necessary under Subchapter 4.5, Biological Resources, Subsections 4.5.6, Environmental Impacts and 4.5.7, Mitigation Measures.

- Restoration objectives should include protecting special habitat elements or re-creating them in areas affected by the Project; examples could include retention of woody material, logs, snags, rocks, and brush piles.

Response: Habitat restoration may be appropriate where SBKR and CAGN are impacted by a future project under the AGSP. The specific mitigations shall be determined in coordination with CDFW and the United States Fish and Wildlife Service (USFWS) upon the determination resulting from a site specific biological survey that these species may be impacted by the proposed development.

Additionally, to compensate for the impacts to City Creek Bypass Channel, the party seeking channel modifications shall either implement onsite enhancement in the area set aside to protect stream channel habitat or acquire offsite compensatory mitigation habitat or create such habitat at a 1:1 mitigation-to-impact ratio. This habitat shall be located within the watershed.

- A recommendation to ensure protection of nesting birds;

*Response: As previously indicated, development under the AGSP may impact nesting birds. MM **BIO-4** shall be implemented to prevent adverse impacts to nesting birds for all future development proposed under the AGSP.*

- A recommendation to require that a CDFW-approved qualified biologist be retained to be onsite prior to and during all ground- and habitat-disturbing activities to move out of harm's way special status species or other wildlife of low or limited mobility that would otherwise be injured or killed from project-related activities; and,

Response: Species and habitat specific mitigation has been provided to ensure that no adverse impacts to biological resources would occur. Given that there is no potential for special status or other wildlife to exist within the whole of the area proposed to be developed under the AGSP (no primary constituent elements except in the City Creek channel which will not be disturbed), the IVDA does not believe it is necessary to ensure that no significant impacts would occur to biological resources within the AGSP Planning Area to require biological monitoring.

- A recommendation to disallow use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species.

Response: Given that there is not potential for special status or other wildlife to exist within the whole of the area proposed to be developed under the AGSP, the IVDA does not believe it is appropriate to apply this measure to the whole of the Planning Area. Where consultation with CDFW or USFWS is required as a result of the presence of CAGN and/or SBKR, this mitigation measure will be considered.

NOP Comment Letter #3 CDFW: The Comment Letter provides information regarding the California Environmental Species Act (CESA), specifically referencing the CESA-listed species have the potential to occur onsite or have previously been reported onsite: San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*).

Response: A discussion of the potential for this species to exist within the AGSP Planning Area can be found under Subsection 4.6.5, Environmental Impacts under Subchapter 4.5, Biological Resources, specifically under issue BIO-1.

NOP Comment Letter #3 CDFW: The Comment Letter provides information regarding the Lake and Streambed Alteration Program (LSA Program) as the design and construction of City Creek Bypass upgrades are likely to notify CDFW per Fish and Game Code section 1602.

*Response: A discussion of the potential regulatory requirements for upgrades and modifications to City Creek Bypass can be found under Subsection 4.6.5, Environmental Impacts under Subchapter 4.5, Biological Resources, specifically under issue BIO-2. This channel is considered a non-wetland and non-jurisdictional water of the United States under current U. S. Army Corps of Engineers regulations. It is considered a water of the State subject to regulation by the RWQCB under Porter-Cologne and Section 1602 of the California Fish and Game Code (FCG) administered by the CDFW. Improvements to this channel downstream of Victoria Avenue will require permits from these two agencies. MM **BIO-3** will be implemented if and when the City Creek Bypass Channel is disturbed.*

NOP Comment Letter #3 CDFW: The Comment Letter provides information regarding the submittal of information to the California Natural Diversity Database (CNDDDB). The Comment Letter provides information regarding CDFW filing fees.

Response: The comment is noted and is part of the record for this project for use when future development is proposed under the AGSP.

NOP Comment Letter #4 San Bernardino Valley Water Conservation District: The Comment Letter indicates that the San Bernardino Valley Water Conservation District owns properties to the east of the AGSP boundary within the Upper Santa Ana River Wash for purposes of groundwater recharge and is the Permittee for the Upper Santa Ana River Wash Habitat Conservation Plan. The Comment Letter requests that inclusion and analysis of the Upper Santa Ana River Wash Habitat Conservation Plan in the Biological Resources, Land Use & Planning, and other applicable sections.

Response: The proximity of the AGSP to the Upper Santa Ana River Wash Habitat Conservation Plan only occurs at the City Creek Channel and is acknowledged in the DEIR. However, the AGSP does not envision any activities that would impact the City Creek Channel (as opposed to the City Creek Bypass Channel). Therefore, any potential for conflict with the Wash Habitat Conservation Plan is negligible to nonexistent.

NOP Comment Letter #4 San Bernardino Valley Water Conservation District: The Comment Letter provides Wash Plan Covered Activities that may apply to the AGSP, and if applicable, the San Bernardino Valley Water Conservation District requests a discussion to be included in the DEIR.

Response: At this time, IVDA does not believe that the Wash Plan Covered Activities apply to the AGSP. Should future site specific development require such input, the contact information provided in the Comment Letter shall be retained and provided to the developer and City within which the development is proposed.

NOP Comment Letter #4 San Bernardino Valley Water Conservation District: The Comment Letter offers to share biological data from the Wash Plan.

Response: At this time, IVDA does not believe that biological data from the Wash Plan is necessary to ensure that impacts from AGSP related activities would not adversely impact biological resources within or adjacent to the area covered under the Wash Plan. Should future site specific development require such input, the contact information provided in the Comment Letter shall be retained and provided to the developer and City within which the development is proposed.

Subchapter 4.6: Cultural Resources

NOP Comment Letter #1 (NAHC): The comment letter supplied by the NAHC outlines the circumstances in which an EIR must be prepared, and specifically relays that the Lead Agency must determine whether there are historical resources within the project APE, and whether such resources are significant.

Response: This comment is noted, and IVDA has followed through with the preparation of an EIR, within which, under Subchapter 4.6, historical and archeological are considered and analyzed under the thresholds provided by the NAHC.

The Cultural Resources Assessment specific to the development in the AGSP has been prepared in accordance with the NAHC's recommended standards. This report is provided as Appendix 3 to Volume 2 of this DPEIR.

NOP Comment Letter #1 (NAHC): The comment letter supplied by the NAHC indicates that the lead agency must consult with all Native American tribes that are traditionally and culturally affiliated with the geographic area of a proposed project; the Comment Letter details the AB 52 consultation process.

Response: This comment is noted, and IVDA has contacted the San Manuel Band of Mission Indians—a Tribe that is a partner in the development of the AGSP—under the AB 52 consultation process, as the only Native American tribe that has requested consultation on future projects under the IVDA/SBIAA jurisdiction.

NOP Comment Letter #1 (NAHC): The Comment Letter details the provisions of SB 18 and how a lead agency would comply with SB 18.

Response: This comment is noted, and SB 18 is not applicable to the IVDA as IVDA does not have land use authority to adopt or modify a General Plan or Specific Plan. SB 18 will be required to be initiated by both the City of Highland and the City of San Bernardino after the IVDA Board

of Directors considers the certification of the Final AGSP PEIR. If the IVDA Board of Directors certifies the Final AGSP PEIR, then the Cities of Highland and San Bernardino may take the certification of the AGSP PEIR to the respective City Planning Commissions and/or City Councils for certification. The SB 18 process would be completed by each City prior to consideration of the certification of the Final AGSP PEIR by each City and approval of the AGSP itself.

NOP Comment Letter #1 (NAHC): The Comment Letter details NAHC recommendations for cultural resource assessments including contacting the appropriate regional archaeological information center for record search, conducting an archaeological inventory survey if required, and submit report per requirements, contacting the Native American Heritage Commission for a sacred lands file check, as well as suggestions for mitigation to prevent impacts to subsurface resources.

Response: The “Historical/Archaeological Resources Reconnaissance Fifth and Third Street Corridor Specific Plan Cities of San Bernardino and Highland, San Bernardino County, California” and “Historical/Archaeological Resources Survey Report City Creek Channel Project Cities of San Bernardino and Highland San Bernardino County, California” that were prepared for the AGSP has been prepared to the specifications provided in this comment. Please refer to Appendices 3a and 3b in Volume 2 of this DPEIR. Detailed programmatic mitigation has been provided to address the potential for subsurface resources to exist within the Planning Area, as no site-specific projects have been proposed under the AGSP at this time; these measures address the treatment and disposition of subsurface resources, should they be discovered. These mitigation measures can be found under Subsection 4.6.5.

Energy

Scoping Meeting Speaker #2 Andrea: The speaker states that warehouses in Moreno Valley were built without access to electricity. Edison suggested it would be several years before the infrastructure would be available for these uses. The speaker suggests that back-up generators should not be allowed and development should not be allowed until electricity service is available. The speaker asks what are the ramifications of generators being utilized over a period of years until electricity is available to serve them?

*Response: Generators would have to be permitted by the local air district and would specify limitations on operating hours depending on the type of generator selected. Utilizing generators over a period of years would potentially increase air quality/greenhouse emissions and could result in increased diesel emissions depending on the type of generator. Thus, under Subchapter 4.4, Air Quality, MM **AQ-44**, has been established to ensure that the use of generators is limited to a use period of 9 months, and is not a permanent source of energy for a given project. Most importantly, MM **AQ-44** sets forth that, for projects requiring the operation of a generator for more than a three month period, a Health Risk Assessment (HRA) subject to the provisions of MM **AQ-15** must be prepared. This would ensure that the health risk from future generator use within the AGSP Planning Area would be minimized to a level of less than significant. Furthermore, Subchapter 4.20, Utilities and Service Systems, MM **UTIL-2** has been established to ensure that future development under the AGSP secures a will-serve notice for electricity service from Edison prior to approval of the proposed project by the City within which the development is planned.*

Geology and Soils

No Comments on this topic were received.

Greenhouse Gases (GHG)

Comments on this topic are addressed fully under the Air Quality header.

Hazards and Hazardous Materials

No Comments on this topic were received.

Hydrology and Water Quality

NOP Comment Letter #7 Teamsters: The Comment Letter recommends that the DEIR contain flood mitigation.

Response: The proposed project intends to improve the City Creek Bypass Channel and the watershed flood management systems to ensure sufficient capacity to convey the future 100-year flood flows between Victoria Avenue (just north of the Airport and south of 3rd Street) and the Warm Creek Channel. This is discussed in detail in Subchapter 4.11, Hydrology. Refer to the following comment for more details.

NOP Comment Letter #8 San Bernardino County Public Works: The Comment Letter describes that the San Bernardino County Flood Control District (Flood Control District) possesses easement and fee-owned right-of-way within and surrounding the perimeter of the AGSP Planning Area, and notes that the AGSP Planning Area is within the Comprehensive Storm Drain Plan (CSDP) No. 6. The Comment Letter notes that, when planning for or altering existing or future storm drains, IVDA should be advised that the project is subject to the District's Comprehensive Storm Drain Plan No. 6, dated August 31, 2001. Construction of new or alterations to existing storm drains should be fully evaluated in the DEIR.

Response: A discussion of the applicability of and compliance with the District's Comprehensive Storm Drain Plan No. 6 can be found in Subchapter 4.11, Hydrology. The proposed project intends to improve the City Creek Bypass Channel to ensure sufficient capacity to convey the future 100-year flood flows between Victoria Avenue (just north of the Airport and south of 3rd Street) and the Warm Creek Channel. This is discussed in detail in Subchapter 4.11, Hydrology.

NOP Comment Letter #8 San Bernardino County Public Works: The Comment Letter notes the flood zones within which the AGSP Planning Area lies:

- FEMA Flood Insurance Rate Map, Panels 06071C8682J; 8701J, dated September 2, 2016, and 06071C8702H, dated August 28, 2008, the Project lies within Zones A, AE, X-shaded (500-year floodplain; protected by a levee), X-unshaded, and the Regulatory Floodway.

Response: The listed FIRM panels and flood zones are noted and fully analyzed in relationship to AGSP implementation under the analysis provided in Subchapter 4.11, Hydrology.

NOP Comment Letter #8 San Bernardino County Public Works: The Comment Letter recommends that the Cities of Highland and San Bernardino enforce its most recent regulations for development within a Special Flood Hazard Area (SFHA) and floodplains.

Response: The most recent regulations for development within SFHA and floodplains are analyzed in Subchapter 4.11, Hydrology; however, it should be noted that the improved capacity of the City Creek Bypass Channel would minimize the existing flood hazards throughout the AGSP Planning area.

NOP Comment Letter #8 San Bernardino County Public Works: The Comment Letter notes that any encroachments including, but not limited to access for grading, side drain connections, utilities crossing, street improvements, and channel improvements on the District's right-of-way or facilities will require a permit from the District's prior to start of construction. Additionally, District's facilities built by the Army Corps of Engineers (ACOE) will require the District to obtain approval (408-Permit) from the ACOE. These impacts should be discussed in the DEIR.

*Response: The District permit requirements are discussed and analyzed in Subchapter 4.11, Hydrology. The need for a 408-Permit from the ACOE is discussed therein as well, but is analyzed in more detail under subchapter 4.5, Biological Resources. MM **BIO-3** will be implemented if and when the City Creek Bypass Channel is disturbed.*

Land Use and Planning

NOP Comment Letter #5 PCEJ: The Comment Letter suggests that IVDA and the Cities of Highland and San Bernardino create an oversight committee that can negotiate and implement community benefits agreements with the developers and operators of facilities within the AGSP.

Response: IVDA does not have the land use authority to set up an oversight committee to implement and negotiate community benefit agreements. The Cities of San Bernardino and Highland would need to consider each future development project under the AGSP in addition to the possible community benefit agreements therein as individual development projects are proposed. Given that no specific development projects have been proposed under the AGSP at this time, a community benefit agreement between the developers and the community is not possible at this time.

NOP Comment Letter #5 PCEJ: The Comment Letter suggests that IVDA must do a full environmental impact report with appendices that examine the environmental justice impacts, public health impacts and economic impacts.

*Response: The full-scale environmental impact prepared for the AGSP, herein, examines environmental justice impacts, public health impacts and economic impacts. Public health impacts are specifically found under the Air Quality Subchapter (4.4); IVDA directs the reader to the responses to comments found under the **Air Quality** header. Environmental Justice is typically discussed under Land Use and Planning because each City who has adopted a new General Plan is required to provide a chapter specific to this issue. Furthermore, the Southern California Association of Governments (SCAG) Connect SoCal Report, a regional planning document, also addresses this issue. The analysis of public health and environmental justice can be found under the analysis provided under LU-2 under Subsection 4.12.6 in Subchapter 4.12, Land Use and Planning.*

NOP Comment Letter #7 Teamsters: The Comment Letter expresses that the planning process for the SBIA should treat the airport as a scarce resource, setting high standards for jobs, infrastructure, pollution mitigation, and quality of life for the surrounding areas. The Comment Letter recommends that the DEIR contain the following: Creation of an oversight committee that can negotiate and implement community benefits agreements with the developers and operators of facilities on the site. The Comment Letter explains how community benefit agreements could be used as a tool under future AGSP development. The community benefit agreement process is outlined in the Comment Letter. The Comment Letter recommends that the DEIR contain the following: Mitigation such as, a study of specific impacts of different types of warehouse and

logistical uses, and in particular the different types of vehicles (freight, trucks, commercial vans, passenger vehicles) to be used, and their impact on public safety.

Response: Please refer to the response under NOP Comment Letter #5 PCEJ, above, as this comment addresses community oversight.

Please refer to the responses under Scoping Meeting Speaker #7 Yassi and Scoping Meeting Speaker #8 Sheena, below under Transportation, which address public safety as a result of truck traffic.

Scoping Meeting Speaker #1 Andrea: The speaker believes that there should be objectives about community safety, guaranteeing economic opportunities to the residents who live in the Planning Area.

Response: Community safety objectives can be found throughout the Specific Plan itself, and additionally, future development under the AGSP must conform to the Safety Element guidelines devised under each City's General Plan. Here are just a few of the discussions regarding safety in the Specific Plan itself:

- *Pg 24, Vision: Well designed, built, and maintained roadways maximize safety and connectivity and minimize conflict so that buses, bicycles, automobiles, and pedestrians safely share the roadways.*
- *Pg 91, Lighting: Lighting shall be designed to enhance safety and security.*
- *Pg 100, AGSP Circulation System: To implement the Specific Plan's vision and objectives, as well as the aforementioned state laws, the mobility plan seeks to increase pedestrian and bicycle facilities and safety throughout the Plan Area while also integrating motor vehicles and public transit to create complete streets.*
- *Pg 101, Complete Streets: Complete Streets include components such as fully constructed sidewalks and crosswalks, and bicycle lanes. Not only do Complete Streets help promote efficient travel, safety, and healthy lifestyles, they are also a requirement of State law.*
- *Pg 114, Pedestrian connections within parking areas should include landscaping elements to provide visual interest and relief and to provide safety and security for pedestrians.*
- *Pg 114, Parkway-separated sidewalks with landscaping and shade trees should be provided where possible to provide a buffer from the street, increased safety and convenience for pedestrians, and add color and visual interest to the public realm.*
- *Pg 150, Design Review: new development does not have an adverse aesthetic, health, safety or architecturally related impact upon existing development and adjoining properties within the Plan Area and for each participating agency. A review committee for each Responsible Jurisdiction shall have the authority to develop and related site plans, review proposed projects for compliance with the development standards and design guidelines of this Specific Plan.*
- *Pg 151, Findings Related to Design Review: That the proposed project, together with any applicable conditions, will not be detrimental to the public health, safety, or welfare or will not be materially injurious to properties or improvements in the vicinity of the site.*
- *Pg 185: Relocating the bikeway will ensure the safety of cyclists, ensure that truck traffic along 5th Street is uninterrupted, and help improve the way people get to and around the Plan Area.*

The analysis of safety in regards to each City's General Plans can be found under LU-2 under Subsection 4.12.6 in Subchapter 4.12, Land Use and Planning. The request for guaranteeing economic opportunities to the residents who live in the Planning Area is an interesting one. In

order for a program like this to work, the developers need to be able to draw workers from the planning area that meet their criteria for the specific job at hand, and the residents need to buy into desiring to work for such developers. Without any specific development proposals under the AGSP at this time, it would be speculative to presume that residents, specifically the approximately 2,471 persons that live in the AGSP Planning Area, would either be qualified for or interested in the specific job opportunities that will be presented under future AGSP development. Job guarantee is not a CEQA issue. It is something that could be negotiated with future developers. The Lead Agency cannot impose from where a future specific project development obtains future employees. IVDA, and the Cities of Highland and San Bernardino can recommend to developers that they initially reach out to the community for employment at future facilities. This would be encouraged through MM **TRAN-8** which addresses Vehicle Miles Traveled (VMT) reduction measures, including prioritizing hiring local workers to reduce employee generated VMT. The IVDA, City of Highland, and City of San Bernardino, as stated above, cannot require a building operator or developer to hire local employees, but as part of the entitlement process, this practice can be encouraged.

Scoping Meeting Speaker #2 Stephen: The speaker asks: If this was Palm Springs, would we be asking area to be rezoned? Is this being development type considered because this is an impoverished community? Can developers use eminent domain? Can the Developer threaten the residents to make them leave? If the purpose of IVDA is to revitalize the community, is the proposed use (Light industrial and commercial), minimum wage jobs meeting this goal? The speaker doesn't believe that the development supported by IVDA has revitalized the community at all.

Response: Unlike the Palm Springs International Airport, much of the area surrounding the SBIA is vacant (290.21 acres of the approximately 515.36 developable acres within the AGSP, refer to Table 3-1). Furthermore, in addition to the vacant acreage, approximately 75.75-acres of the AGSP land area is currently developed with Industrial uses, and 19.87 acres are developed with Commercial uses. These uses would remain consistent with the proposed Specific Plan designation of "Mixed Use Business Park." This development proposed to be allowed under the AGSP, the Cities and IVDA believe, would provide a setting under which the vacant land area that has remained vacant in the years since the Leland Norton Airforce Base has transitioned into the SBIA would have the best opportunity to be developed. Furthermore, as with the other transition areas around the SBIA to the south and west, the project that has been proposed would provide a transition between the airport, airport-serving, and logistics/industrial/commercial uses.

*As stated in the Scoping Meeting, developers cannot use eminent domain. Eminent domain is the prerogative of a government or its agent to acquire private property for public use, with payment of appropriate compensation. Developers cannot threaten residents to make them leave, as this would not be legal. Ultimately, in order for a developer to wish to buy property from the residents within the AGSP, the residents would need to agree to sell their property. Additionally, in a situation where a future development would displace residents, the developer would be required to adhere to MM **PH-1**, which would ensure that residents would receive adequate relocation assistance.*

Norton Air Force Base was announced for closure in 1988 under the Base Realignment and Closure Act (BRAC-1) and was officially closed on March 31, 1994. At the time of closure, over 10,000 direct jobs were lost, which were comprised of approximately 8,000 military and 2,000 civilian employees. A 2009 California State University San Bernardino Economic Impact Analysis concluded that the 10,000 direct jobs lost due to the Norton Air Force Base closure equated to a

total job loss of over 15,458 total jobs, representing a \$1.5 B loss in Annual payroll and a \$1.9 B loss of Economic Output.

Since its formation as a special military base reuse joint powers authority in 1990, the Inland Valley Development Agency (IVDA) has actively engaged and deployed numerous economic development, environmental remediation, workforce development, airport, and public infrastructure programs and projects to help bring and retain new jobs and investment into its base reuse project area. These include a number of inter-governmental, tribal, and public-private partnerships. As of 2021, the IVDA had helped to return over 17,126 jobs to the region and over 15 million square feet of new development.

Scoping Meeting Speaker #5 Henry Salazar: The speaker mentions job guarantee as a desire.

Please refer to the response under Scoping Meeting Speaker #1 Andrea, above, which provides a response to the concerns raised in this comment.

Scoping Meeting Speaker #7 Yassi: The speaker is concerned about possible jobs and livelihood offered to the community? The speaker asks why are more minimum wage jobs with companies that are multi-national corporations that don't care about the community being invited to this area? The speaker states that there is not a fresh food grocery store nearby. The speaker asks how would the AGSP facilitate this? The speaker suggests community-based mitigation to increase livelihoods in this area. The speaker states that there are retrofit jobs that provide a livable wage. The speaker suggests that the document/Project Team should spell out the requirements regarding wages by the state in the document. The speaker believes that there should be a Community oversight structure housed within the Community herein to oversee the implementation of future projects under the AGSP.

Please refer to the response under Scoping Meeting Speaker #1 Andrea, above, which provides a response to some of the concerns raised in this comment. As stated under the response to Scoping Meeting Speaker #1 Andrea, above, there are no specific development proposals under the AGSP at this time. Job opportunities are something that could be negotiated with future developers. The Lead Agency cannot impose from where a future specific project development obtains future employees. IVDA, and the Cities of Highland and San Bernardino can recommend to developers that they initially reach out to the community for employment at future facilities. The response under Scoping Meeting Speaker #1 Andrea, above, addresses the issue of drawing employees from the community. The community will have an opportunity to provide input on future projects proposed under the AGSP through the follow-on entitlement process that would be required for future development, i.e., through City Planning Commissions and City Councils. At this stage, where future site specific development is proposed, the community can provide input to the Cities on the environmental analyses and scope of future development.

Please refer to the response under NOP Comment Letter #5 PCEJ, above, as this comment addresses community oversight.

The proposed project would include the installation of infrastructure throughout the AGSP planning horizon. The installation of such infrastructure would generate new "retrofit" job opportunities. The IVDA cannot impose a specific requirements regarding wages for future operations proposed under the AGSP. State and local wage requirements must be adhered to, but as IVDA does not have land use and entitlement authority, it cannot impose a specific wage requirement on future development under the AGSP beyond those that have already been

established. Furthermore, prevailing wages and compliance with the Federal and California State Law regarding wages is not a CEQA issue and therefore will not be addressed further in this DEIR.

Scoping Meeting Speaker #9 Sean Martinez: The speaker believes there is a high level of interest in economic development in the community. The speaker believes there is an opportunity to negotiate and implement Community Benefit Agreements for each of the developments that would occur under the AGSP. The speaker communicates that there is a lack of trust between the community and institutions. They believe this project would provide an opportunity to create good will in the community, which will be needed to revitalize this area. They believe that the last 30 years have been a failure to the community as a result of high injury rate jobs and high turn-over jobs, which have not benefitted the community. Working with the community to receive their feedback and implement Community Benefit Agreements would present an opportunity to restore trust. The speaker offers to help IVDA and the Cities to implement the community benefit agreements, etc.

Please refer to the response under Scoping Meeting Speaker #2 Stephen, above, which provides a response to the concerns raised in this comment.

Please refer to the response under NOP Comment Letter #5 PCEJ, above, as this comment addresses community oversight.

Scoping Meeting Speaker #10 Jo: The speaker is looking for community involvement, good jobs, and protection of the surrounding houses. The speaker believes that San Bernardino has been on a course of tragedy with non-union jobs, poor training.

Please refer to the response under NOP Comment Letter #5 PCEJ, above, as this comment addresses community oversight.

Mineral Resources

No Comments on this topic were received.

Noise

Scoping Meeting Speaker #10 Jo: The speaker is looking for mitigation of noise, including noise mitigation should be considered for houses and schools that are adjacent to the project.

*Response: Subchapter 4.14 addresses the potential impacts on the existing noise environment from the proposed AGSP. Operationally, the proposed project would require the implementation of MM **NOI-1**, which would require a reduction in potential operational noise levels increases at the nearby noise-sensitive receiver locations through site design measures, sound barrier walls or earth berms, operating equipment outdoors that is fitted with well-maintained mufflers, maintaining the quality of pavement conditions within the property, and imposing restrictions on truck noise. Construction noise abatement measures include MMs **NOI-2** through **NOI-9**, which would ensure that the AGSP would result in a less than significant construction noise impact. The proposed project would result in a significant and unavoidable off-site traffic noise impact because mitigation to reduce such noise would be required to be implemented on private property, and unless the property owners agree to enable such mitigations to be implemented, this impact would be significant. The IVDA and Cities would aim to work with private property owners to enable off-site traffic noise to be implemented, but cannot force any private property owner to accept such mitigations to be implemented.*

Population and Housing

NOP Comment Letter #5 PCEJ: The Comment Letter emphasizes concern that the residents and businesses that would be displaced by the AGSP should be involved in the CEQA process.

*Response: The AGSP planning area currently houses an estimated 2,471 persons within an estimated 760 residential units. A conceptual relocation plan for the 760 housing units has been prepared by OPC (provided as Appendix 10 of Volume 2 of this EIR); this plan outlines a reasonable manner by which the Cities of San Bernardino and Highland, IVDA, and the San Manuel Band of Mission Indians would facilitate the relocation of housing as developments are proposed and processed. This plan is conceptual in nature and is intended to provide future developers developing land within the AGSP that contains existing occupied housing with an outline of the components required to be included in future relocation plans. The purpose of a relocation plan is ultimately to ensure that persons who reside within housing requiring demolition as a result of a given proposed development who would be displaced by project development are provided resources to facilitate each impacted household's relocation. Per MM **PH-1** the relocation plans would be required to comply with the requirements of the California Relocation Assistance Law, California Government Code Section 7260 et seq, and if federal funding is anticipated, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. MM **PH-2** would require that, where sufficient comparable replacement housing resources does not exist at the time a displacement would occur, the Developer shall be required to complete a second-tier CEQA evaluation documenting displacement impacts, and MM **PH-3** would require that, where the only available means to provide sufficient replacement housing to persons that would be displaced by development under the AGSP is constructing new housing, the Developer or Agency shall be required to complete a second-tier CEQA evaluation. The IVDA and the Cities of Highland and San Bernardino believe that these measures are sufficient to ensure that (a) persons and housing that would be displaced by development under the AGSP are provided adequate relocation resources, and that (b) under the circumstances described under **PH-2** and **PH-3**, further environmental evaluation of the specific impacts related to those circumstance would be required to ensure that the full scope of the impacts are addressed, and where possible, mitigated.*

Scoping Meeting Speaker #2 Stephen: The speaker asks: Where are the majority of the residents are located? In Highland or in San Bernardino? What is the impact of the houses being relocated on the housing crisis?

Response: The majority of the residents are, as discussed in the scoping meeting, in the City of Highland. There are about 2,433 residents in the City of Highland, and about 38 residents in the City of San Bernardino per Table 3-2 of the Project Description. The impact of the residents and houses that would be relocated under the proposed AGSP development can be found under Subchapter 4.15, Population and Housing. Furthermore, this is discussed in detail above under the response to NOP Comment Letter #5 PCEJ, above.

Scoping Meeting Speaker #6 Mauricio: The speaker asks: Are there plans to inform the residents or plans for the displaced residents?

Response: As discussed under CEQA Compliance, Please refer to the response under NOP Comment Letter #5 PCEJ, above, which provides a response to the concerns regarding displaced residents raised in this comment.

Public Services

No Comments on this topic were received.

Recreation

Scoping Meeting Speaker #7 Yassi: The speaker states that there is not a greenspace or indoor recreation facility. How would the AGSP facilitate this?

Response: The Cities consider impacts to parks from industrial, commercial, and other non-residential projects less than significant through the contribution of property and sales taxes, which in turn contribute to the general funds of the Cities of Highland and San Bernardino commensurate with property value and sales values. Neither City presently has a funding mechanism to obtain development impact funds from Industrial and Commercial uses, as such MM REC/PK-1 would require future projects to contribute funds to the City/Cities within which the proposed development is located that, which would be allocated to developing or improving parks and/or recreational facilities within the AGSP planning area or otherwise located within the corresponding City. The fair share contribution to parks and/or recreational facilities is for every 10,000 SF of development associated with the AGSP, the project shall contribute 0.11% of the funds necessary to develop 25.5 acres of parkland or otherwise fairly contribute to development of parks as defined by the City of San Bernardino, City of Highland, and the IVDA.

Transportation and Traffic

NOP Comment Letter #7 Teamsters: The Comment Letter recommends that the DEIR contain the following: Mitigation such as, a study of specific impacts of different types of warehouse and logistical uses, and in particular the different types of vehicles (freight, trucks, commercial vans, passenger vehicles) to be used, and their impact on road wear and tear.

Response: The “Airport Gateway Specific Span Traffic Impact Study (TIS)” includes a forecast of trips from different land uses related to the ultimate buildout of approximately 9.2 million square feet of mixed Business Park uses in the AGSP by 2040. Regarding road “wear and tear” from the future traffic it is assumed that the circulation system will gradually be reconstructed as development occurs and as funding is received from various future grants. Once reconstructed, the cities will need to allocate funding to maintain them in good condition.

NOP Comment Letter #8 San Bernardino County Public Works: The Traffic Division of the San Bernardino County Flood Control District notes in the Comment Letter the following regarding circulation in the AGSP Planning Area:

- A portion of properties adjacent to 5th Street are zoned Multi-Family, and additional residences are located within the Limited Industrial zone.

Response: The impacts to these residences and Multi-Family land use designations, including support for relocation of residents, are fully analyzed in Subchapter 4.15, Population and Housing.

- Future dedication and construction of a 6-Lane Divided Major road (5th Street) will place truck traffic immediately adjacent to the existing residences and may displace residences, and the EIR should specify which cross section listed in the EIR this is referring to.

Response: The primary goal of the AGSP is to transition residential uses from the project area and redevelop the whole corridor with mixed Business Park and Light Industrial uses. However, this transition will occur gradually, unless sufficient funding is obtained to improve the whole of

the six-lane corridor at one time, which would require funding for property acquisition. The proposed structural section for 5th Street is shown on Figure 4.18-25.

- The EIR should discuss the existing structural section, which is not constructed to accommodate a 6-Lane Divided Major road with proposed volumes of truck traffic, and provide costs as well as funding mechanism to reconstruct within the EIR.

Response: The AGSP DPEIR has identified a need for a 6-Lane Divided Major road based on the anticipated trip generation within the AGSP and background traffic growth forecast through 2040. It is anticipated that adjacent development will fund some of the 5th Street road improvements. Beyond that, the IVDA and two cities have historically been successful in obtaining grants to construct new roads, such as 3rd Street east of Victoria. The economic costs to fund construction have not yet been identified as it is deemed premature. Also, it is beyond this document's responsibility to provide cost estimates as this is an economic, not an environmental issue.

- Discuss impacts to residents along Del Rosa Drive and Del Rosa Avenue from truck traffic along these roadways.

Response: Discussions with the two cities and taking into account the changes in land uses in the vicinity of the 6th Street/Del Rosa intersection (two schools and the Sterling Natural Resource Center), has resulted in a decision to eliminate Del Rosa as a truck route at least through the AGSP (from 3rd Street to 6th Street). Del Rosa will no longer be designated truck route. Ultimately within the AGSP Planning Area, the residential uses would be phased out as new development is proposed. Residences outside of the planning area would not experience AGSP related truck traffic as a result of the AGSP and within the AGSP 6th Street is proposed to restrict truck traffic to local deliveries.

- Del Rosa Drive currently has insufficient right-of-way to accommodate a 4-Lane Divided Major road, and the EIR should specify which cross section the EIR is referring to.

Response: In recognition of the construction of the Sterling Natural Resources Center at Del Rosa and 6th Street and the new schools on Del Rosa north of 6th Street, the AGSP includes a recommendation that Del Rosa not be retained as a major north-south truck route and no longer be designated as a 4-Lane Divided Major roadway.

- The Traffic Impact Study should be provided to the County for its review, and this should include supporting justification for the 2040 roadways segments.

Response: The Traffic Impact Study will be provided to the County for its review.

Scoping Meeting Speaker #5 Henry Salazar: The speaker asks: Are the truck routes established and permanent?

Response: The truck routes are established and permanent. The truck routes are outlined in the AGSP itself, in addition to in the Project Description, and Subchapter 4.16, Transportation. The Cities each require that designated truck routes are maintained, as part of the respective General Plan Circulation Elements. MM HAZ-1 would require all routine large truck access to industrial projects constructed between 5th and 6th Streets shall be from 5th Street. It also would designate 3rd and 5th Streets within the AGSP project area as truck routes.

Scoping Meeting Speaker #6 Mauricio: The speaker asks does it state in the EIR/Specific Plan that a goal is to buffer trucks from residents?

*Response: As stated above under Scoping Meeting Speaker #5 Henry Salazar, and under Air Quality under NOP Comment Letter #2 (SCAQMD), MM **HAZ-1** would require all routine large truck access to industrial projects constructed between 5th and 6th Streets shall be from 5th Street, which would minimize potential conflicts with residential uses along 6th Street. This is the primary location at which sensitive receptors would be located within the AGSP upon build-out of the Planning Area, thus the intent of the above is to buffer trucks from residents.*

Scoping Meeting Speaker #7 Yassi: The speaker is concerned about truck safety along the truck routes and having trucks that can carry drayage/cargo near commercial and residential properties. The speaker vocalizes additional concerns about obscenities on cargo trucks.

*Response: Under Subchapter 4.18, Transportation, **TRAN-9** would require truck entrances to be located on 3rd or 5th street; **TRAN-10** would require projects with frontage along north-south streets to locate their passenger car driveways on the north-south streets, except where a petition is made due to infeasibility. These measures would ensure greater truck safety in the project area as much of the truck traffic would be located on higher capacity roadways, designated for truck use. Additionally, construction traffic control plans shall be prepared to minimize conflicts during construction (MM **TRAN-11**). By locating truck routes away from residences, truck safety within the planning area would be minimized.*

Scoping Meeting Speaker #8 Sheena: The speaker states that trucks blast through red lights every day in the general project area. The speaker believes that this project would bring more trucks and more development to an area that has significant traffic already.

Response: Please refer to the cumulative impact analysis provided under Subchapter 4.18, Transportation, specifically refer to Subsection 4.18.5. Please note that concerns about persistent traffic violations should be reported to the pertinent law enforcement agency as such violations should be addressed through traffic law enforcement. The AGSP itself outlines truck routes required to be utilized by future trucks that are generated by future development under the AGSP. The requirement for use of truck routes has been generally established as a safety measure to ensure minimal conflicts between truck trips and resident generated trips. By locating truck routes away from residences, truck safety within the planning area would be safeguarded.

*Cumulative trip generation within the AGSP based on buildout of the available land and the areas receiving new land use designations within the AGSP is forecast to be 30,972 net passenger car equivalent (PCE; a PCE factor of 2.0 PCE for 2-axle trucks, 2.5 PCE for 3-axle trucks, and 3.0 PCE for 4+-axle trucks) trips on a daily basis, with 1,772 net PCE trips in the morning peak hour, and 2,220 net PCE trips in the evening peak hour. When these trips are placed on the already existing circulation system, mitigation measures must be implemented to maintain adequate roadway traffic flow on 15 road segments, and additionally, 10 intersections will need to be modified to maintain an acceptable LOS. With the implementation of MMs **TRAN-1** through **TRAN-11**, cumulative impacts to the circulation system would be minimized. However, the VMT Analysis, provided as Appendix 11b to Volume 2 of this DPEIR, concluded that the AGSP would contribute significant vehicle miles travelled. Given that the project would exceed the VMT thresholds set forth by the Cities of Highland and San Bernardino, the AGSP would contribute significant cumulative vehicle miles travelled within the project area and region. As this has been identified as a significant and unavoidable project specific and cumulative impact, in order to be*

certified by the IVDA Board of Directors, a Facts, Findings, and Statement of Overriding Considerations will be required to be presented to the Board as part of the Final EIR Package. This document would outline the reasons that the significant impacts are outweighed due to the “overriding considerations” or beneficial effects from implementing the AGSP.

Note that the AGSP Project Team has considered VMT reduction measures; however, the effectiveness of TDM measures would be dependent on the ultimate building tenant(s), which are unknown at this time. Beyond project design and tenancy considerations, land use context is a major factor relevant to the potential application and effectiveness of TDM measures. More specifically, the land use context of the project is characteristically suburban. The project’s suburban context acts to reduce the range of feasible TDM measures and their potential effectiveness.

Based on available research, for projects located within a suburban context, a maximum 10% reduction in VMT is achievable when combining multiple mitigation strategies. Due to limitations of project-level approaches to reducing VMT, the City or region may consider larger mitigation programs such as VMT mitigation banks and exchanges. VMT mitigation banks and exchanges have not yet been developed or tested. SBCTA is undertaking a study to evaluate the feasibility of a VMT mitigation bank or exchange to assist lead agencies in implementing SB 743. Thus, ultimately, as the efficacy of TDM measures and reduction of VMT impacts below thresholds cannot be assured, the project’s VMT impact is considered significant and unavoidable.

Scoping Meeting Speaker #10 Jo: The speaker is looking for mitigation of traffic.

Response: Please refer to Subchapter 4.18, Transportation. A total of 10 mitigation measures are considered under this topic to minimize potentially significant impacts. These are found under issue TRAN-4, and issue TRAN-1.

Tribal Cultural Resources

No Comments on this topic were received.

Utilities and Service Systems

Scoping Meeting Speaker #7 Yassi: The speaker states that utilities should be included in the design of the AGSP and individual projects. The speaker expresses that there is a huge opportunity for recycled water, pipe fitters, potential to implement construction jobs with pipe fitting recycled water.

Response: EVWD is currently under construction with the Sterling Natural Resource Center (SNRC), which will be a state-of-the-art water recycling facility in the City of Highland, that is designed to provide a sustainable new water supply to boost the region's water independence. The recycled water conveyance pipelines would be primarily constructed along the existing rights-of-way within major east-west roadways within the AGSP. SNRC will be capable of treating up to 10 million gallons a day. The SNRC is being implemented to recharge the local Bunker Hill Groundwater Basin and will provide community education, training space, neighborhood improvements, and new habitat for the Santa Ana Sucker fish. The SNRC will produce Title 22 quality recycled water (recycled water) but it is not currently proposed to be a source to serve the AGSP planning area since all of the recycled water produced at the SNRC is intended to be used for groundwater recharge. In a way, groundwater recharge from the SNRC would ultimately benefit future development under the AGSP, as the potable water supply from EVWD serving the project area will be expanded as the availability of groundwater is expanded by the groundwater

recharge facilitated by EVWD's SNRC. In order to ensure that the AGSP planning area is designed to utilize all available natural resources in a sustainable manner, all non-potable water uses would be designed to accommodate and utilize recycled water if it should become available in the future.

Wildfire

No Comments on this topic were received.

Cumulative Impacts

Scoping Meeting Speaker #7: The speaker sits on the Jurupa Valley Planning Commission and asks what projects are occurring in the area outside of the specific plan? The speaker asks the Project Team to look at cumulative impacts of implementing this project along with other cumulative projects.

The existing projects in process maps and project list are provided as Figures 6.2-1 through 6.2-3. Cumulative impacts are analyzed in each of the issue topics under Chapter 4, and are also specifically discussed in Chapter 6, Topical Issues, under Subsection 6.2, Cumulative Impacts. Here you will find a discussion of each topic's cumulative impacts. The AGSP would contribute to significant cumulative Air Quality, Greenhouse Gas, Noise, Transportation, and Utilities and Service Systems impacts.

As noted above copy of the Notice of Preparation and NOP Distribution list are provided in Subchapter 8.1 of this PEIR. A copy of the referenced comment letters/comments is provided in Subchapter 8.3 of this PEIR.

The AGSP PEIR was prepared in order to address all of the issues identified in the NOP as potentially significant and to provide information intended for use by the IVDA, cooperating agencies and stakeholders, interested and responsible agencies and parties, and the general public in evaluating the potential environmental effects of implementing the proposed Project.

CEQA requires that IVDA decision-makers, and the two city's decision makers, consider the environmental information in the Project record, including this PEIR, prior to making a decision on the proposed Project. IVDA must consider and decide whether to approve the AGSP and recommend approval by the cooperating agencies/entities as proposed and described in Chapter 3, Project Description of this PEIR and the Draft AGSP provided in Subchapter 8.4. IVDA also has the authority to recommend modifications to the AGSP based on input provided during the public review process for the PEIR.

As stated above, IVDA will serve as the CEQA Lead Agency pursuant to the CEQA Guidelines Section 15051(b)(1). The AGSP PEIR has been prepared by Tom Dodson & Associates (TDA). TDA was retained to assist IVDA to perform the independent review of the Project required by CEQA before the AGSP PEIR is adopted. IVDA, City of Highland and City of San Bernardino have reviewed the content of the AGSP PEIR and concurs in the conclusions and findings contained herein.

2.3 SCOPE AND CONTENT OF THIS EIR

As stated previously, the AGSP PEIR evaluates the environmental effects of the proposed Project based on the current (2022) Appendix G of the State CEQA Guidelines. In addition to evaluating the environmental issues listed above, the AGSP PEIR contains all of the sections mandated by

the CEQA and CEQA Guidelines. Table 2.3-1 provides a listing of the contents required by CEQA in an EIR along with a reference to the chapter and a page number where these issues can be reviewed in the document. This PEIR is contained in two volumes. Volume 1 contains the CEQA mandated sections and some pertinent appendices. Volume 2 contains the technical appendices.

**Table 2.3-1
 REQUIRED EIR CONTENTS**

Required Section (CEQA)	Section in EIR	Page Number
Table of Contents (Section 15122)	same	li
Summary (Section 15123)	Chapter 1	1.1
Project Description (Section 15124)	Chapter 3	3.1
Environmental Setting (Section 15125)	Chapter 4	Beginning 4.1
Significant Environmental Effects of Proposed Project (Section 15126a); Environmental Impacts	Chapter 4	Beginning 4.1
Unavoidable Significant Environmental Effects (Section 15126b)	Chapter 4	Beginning 4.1
Mitigation Measures (Section 15126c)	Chapter 4	Beginning 4.1
Cumulative Impacts (Section 15130)	Chapter 4	Beginning 4.1 and 6.2
Alternatives to the Proposed Action (Section 15126d)	Chapter 5	Beginning 5.1
Growth-Inducing Impacts (Section 15126g)	Chapter 6	6.1
Irreversible Environmental Changes (Section 15126f)	Chapter 6	6.1
Effects Found Not to be Significant (Section 15128)	Chapter 2 & 8	2.1
Organizations and Persons Consulted (Section 15129)	Chapter 7	7.1
Appendices	Chapter 8	8.1

2.4 AGSP PEIR FORMAT AND ORGANIZATION

The AGSP PEIR contains eight chapters in Volume 1 and a set of technical appendices in Volume 2, which, when considered as a whole, provide the reviewer with an evaluation of the potential significant adverse environmental impacts from implementing the proposed Project. The following paragraphs provide a summary of the content of each chapter of the AGSP PEIR.

Chapter 1 contains the Executive Summary for the AGSP PEIR. This includes a short overview of the proposed Project and a tabular summary of the potential adverse impacts and mitigation measures.

Chapter 2 provides the reviewer with an Introduction to the document and additional summary information about the Project. This chapter of the document describes the background of the proposed Project, its purpose, and its organization. The CEQA process to date is summarized and the scope of the AGSP PEIR is identified.

Chapter 3 contains the Project Description used to forecast environmental impacts. This chapter describes for the reviewer how the existing environment will be altered by implementation of the proposed Project. Chapter 3 sets the stage for conducting the environmental impact forecasts contained in the succeeding several chapters. A copy of the Draft AGSP is provided as Subchapter 8.4 of the PEIR.

Chapter 4 presents the environmental impact forecasts for the issues considered in the AGSP PEIR. For each of the environmental issues identified in Section 2.3, the following impact evaluation is provided for the reviewer: the potential impacts forecast to occur if the Project is implemented; proposed mitigation measures; unavoidable adverse impacts; and cumulative impacts.

Chapter 5 contains the evaluation of alternatives to the proposed Project. Included in this section is an analysis of the No Project Alternative and any other “feasible” or “reasonable” Project alternatives (15126.6(a)).

Chapter 6 presents the topical issues that are required in an EIR. These include any significant irreversible environmental changes and growth inducing effects of the proposed Project.

Chapter 7 describes the resources used in preparing the AGSP PEIR. This includes persons and organizations contacted; list of preparers; and bibliography.

Chapter 8 contains those materials referenced as essential appendices to the AGSP PEIR, such as the NOP and comments on the NOP. Technical Appendices are provided in Volume 2 of the AGSP PEIR, under separate cover. All Appendix material is referenced at appropriate locations in the text of this document.

2.5 AVAILABILITY OF THE AIRPORT GATEWAY SPECIFIC PLAN PEIR

The Draft AGSP PEIR has been distributed directly to all public agencies and interested persons identified in the NOP mailing list (see Subchapter 8.1), the State Clearinghouse, as well as any other requesting agencies or individuals. All reviewers will be provided the 45 days required by CEQA to review the PEIR and submit comments to the IVDA for consideration and response. The AGSP PEIR is also available for public review at IVDA’s website at the following locations (upon request) during the 45-day review period:

Inland Valley Development Agency
1601 E. Third Street, Suite 100
San Bernardino, CA 92408
Point of Contact: Myriam Beltran (mbeltan@sbdairport.com)
Website: www.ivdajpa.org

Tom Dodson & Associates
P. O. Box 2307, San Bernardino, CA 92406 (mailing address)
2150 North Arrowhead Avenue, San Bernardino, CA 92405 (physical address)
Phone: (909) 882-3612
E-mail: tda@tdaenv.com

2.6 REVIEW PROCESS

After receiving comments on the AGSP PEIR, IVDA will prepare a Final PEIR for certification prior to making a recommendation to the IVDA Governing Board regarding approval of the AGSP and recommendations to forward to the City of Highland and City of San Bernardino for adoption. Information concerning the EIR public review schedule and IVDA meetings for this Project can be obtained by contacting Ms. Myriam Beltran. Questions and comments submitted by mail shall be addressed to:

Inland Valley Development Agency
1601 E. Third Street, Suite 100
San Bernardino, CA 92408
Attn: Ms. Myriam Beltran
Phone: (909) 382-4100
Email: mbeltran@sbdairport.com

Certain aspects of the proposed Project may be subject to review and approval by other agencies. Implementation of future individual project(s) to support the AGSP will require a variety of approvals from other agencies (future actions) for which this environmental document may be referenced, cited or utilized. The following summarizes those agency approvals that have been identified to date. This list may be expanded as the environmental review proceeds, so it should not be considered exhaustive.

- Once the IVDA approves the Final AGSP PEIR and recommends approval of the Draft Specific Plan to the cities of Highland and San Bernardino, each City, acting as a CEQA Responsible Agency, will consider adoption of the Airport Gateway Specific Plan to replace the existing land use designation and zoning classifications within the AGSP project area.
- Future site-specific projects may be enacted by the cooperating agencies, including the City of Highland, City of San Bernardino, San Manuel Band of Mission Indians, and East Valley Water District. This PEIR and subsequent environmental documents may be reviewed by each City or Stakeholder (Agency) as part of the review process for future AGSP-related projects.
- San Bernardino County has indicated that there may still be a few parcels of land within the AGSP project area that remain unincorporated and under County jurisdiction. If development is proposed on such parcels there are three possible paths that can be followed. First, the County could adopt the AGSP for these parcels; second, the project could be submitted to the pertinent city, and the pertinent city could prepare a pre-zone designation and initiate an annexation to the city to ultimately grant an entitlement for a proposed project; and third, the County Development Code (para. 82.22.010) allows the County to adopt sphere standards to try to align the County's development standards with the affected sphere city's development standards for a parcel located within a city's sphere. Either city can petition the County to implement the third option presented above if it chooses.
- San Bernardino County Flood Control District.
- Notice of Intent (NOI) to the State Water Resources Control Board (SWRCB) for a NPDES general construction stormwater discharge permit. This permit is granted by submittal of an NOI to the SWRCB, but is enforced through a Storm Water Pollution Prevention Plan (SWPPP) that identifies construction best management practices (BMPs) for the site. In the project area, the Santa Ana River Regional Water Quality Control Board and San Bernardino County enforce the BMP requirements contained in the NPDES permit by ensuring construction activities adequately implement the SWPPP. Implementation of the SWPPP is carried out by the construction contractor under contract to IVDA, a cooperating agency, or a private project applicant after receiving entitlements, with the Regional Board and County providing enforcement oversight.

- The project includes the potential discharge of fill into or alterations of “waters of the United States,” “waters of the State,” and stream beds of the State of California. Regulatory permits to allow fill and/or alteration activities due to project activities such as pipeline installation are likely be required from the Army Corps of Engineers (ACOE), the Regional Board, and California Department of Fish and Wildlife (CDFW) over the life of the AGSP. A Section 404 permit for the discharge of fill material into “waters of the United States” may be required from the ACOE; a Section 401 Water Quality Certification may be required from the Regional Board; a Waste Discharge Report (WDR) may be required from the Regional Board to comply with the Porter-Cologne Act; and a 1600 Lake or Streambed Alteration Agreement may be required from the CDFW.
- There is a low probability that the U.S. Fish and Wildlife Service (USFWS) and/or CDFW may need to be consulted regarding threatened and endangered species documented to occur within the general area of potential direct or indirect impact for future individual projects.
- Air quality permits may be required from the South Coast Air Quality Management District (SCAQMD) for future industrial projects that operated with equipment that can be considered stationary sources of air emissions.
- Encroachment permits may be required from local jurisdictions, such as individual cities, California Department of Transportation (Caltrans), the County (San Bernardino), flood control agencies, and private parties such as Southern California Edison, The Gas Company, or others.

This is considered to be a partial list of other permitting agencies for future AGSP individual, site-specific projects.

CHAPTER 3 – PROJECT DESCRIPTION

3.1 PROJECT LOCATION

The Airport Gateway Specific Plan (AGSP) area is located approximately 60 miles east of Los Angeles just south of the foothills of the San Bernardino Mountains. It is centrally located between three major freeways (State Route (SR)-210 to the north and east, the I-215 to the west, and the I-10 to the south) and regional attractions including the Loma Linda University and Medical Center (5 miles southwest of plan area), University of Redlands (8 miles southeast of plan area), the San Bernardino International Airport (SBIA), and commercial shopping destinations in Downtown San Bernardino and the Highland Town Center, both within 5 miles of the plan area (see Figure 3-1, Regional Location).

The 678.13-acre AGSP Plan area (planning area, here after referenced as 678 acres) is located immediately north of the SBIA and the Plan area extends to the north side of 6th Street except at the southwest and southeast corners of Del Rosa Drive and 6th Street where the Plan extends to the north side of 5th Street. The western boundary extends to the center line of Tippecanoe Avenue and Plan area is bounded by the SR-210 freeway to the east. Third Street in both cities and Fifth Street in the City of Highland serve as the southern boundary of the planning area. The Specific Plan area includes parcels in both the City of Highland (about 485 acres) and the City of San Bernardino (about 193 acres), as shown on Figure 3-2, Local Vicinity Map.

The north side of the Specific Plan area is predominantly bordered by a mix of vacant lands and low to medium density residential uses. The AGSP planning area is located directly across the street from several public facilities including Indian Springs High School, Cypress Elementary School, Highland Community Park, the Highland Branch Library, and the SBIA.

3.2 PROJECT OBJECTIVES

Although the Specific Plan includes an 8.2-acre site within the SBIA, the vast majority of the Plan area serves as the front door to the Airport and the interface strongly influences the type of uses incorporated in the AGSP Land Use Plan, and how those uses may impact the functionality of the 3rd, 5th and 6th Street corridors, and adjacent distribution facilities located directly west of the Plan area. Well-known retailers, such as Mattel, Stater Bros., Amazon, and Kohl's each operate distribution facilities exceeding one million square feet in the general area and are examples of thriving large-scale local industrial development that has developed in the last 20 years to the south of the proposed AGSP.

The AGSP represents a long-range plan (2022 to 2040) for the development of the planning area, and when adopted will guide all future development proposals and other improvements in the Specific Plan area. This is particularly important because the Specific Plan must be implemented consistently across jurisdictional lines by two separate cities for it to be successful. After conferring with the participating agencies, a group of local agencies and stakeholders agreed that the Inland Valley Development Agency (IVDA or Agency, a joint powers agency with responsibilities in both cities and intervening unincorporated areas) would assume the lead in managing the preparation of the AGSP and the environmental documentation required to comply with the California Environmental Quality Act (CEQA). The other participating agencies in developing the AGSP include: City of Highland; City of San Bernardino; the San Manuel Band of Mission Indians; and the East Valley Water District. These stakeholders have jurisdictional and

ownership/service interests in the plan area and have invested significant time and resources in supporting the IVDA in completing the AGSP for the benefit of the region.

Realizing that a significant transition in the Specific Plan area could not occur one project at a time, a primary goal of the group discussions that were held amongst the participating agencies was to facilitate and encourage a potential economic development opportunity that could be beneficial to both cities, the Airport, and existing property owners interested in participating in the transformation of the area. Collectively, the participants determined that the project area would benefit from the preparation of the AGSP. The following objectives have been established for the proposed project and will aid decision makers in their review of the project, its associated environmental impacts, and the proposed alternatives to the project:

- **Economic Opportunities:** Attract innovative and job-generating businesses that deliver an array of job types (diversity of qualifications, wages and salaries) near the area's residential communities and that can respond to changing demand and market conditions in the future.
- **Infrastructure:** Provide comprehensive infrastructure improvements for water, sewer, circulation system, and stormwater drainage that resolve longstanding flooding and hydrology issues and that are adequately financed to meet future system needs.
- **Distinctive Design and Appearance:** Gateways, corridors and buildings within the Airport Gateway Specific Plan are anticipated to feature landmark design elements, create a memorable visitor experience, and provide a unified sense of identity. Building and roadway treatments in this area command the same level of investment and quality of design as achieved under the adjacent Alliance Specific Plan.
- **Streetscape Improvements:** Consistent roadway design and improvements, including landscape, monumentation and an integrated, seamless approach to ongoing maintenance across jurisdictional boundaries.
- **Mobility:** Efficiently connect new industrial, office and existing distribution uses to freeway access while providing safe spaces for pedestrians, cyclists, transit, and motor vehicles along 3rd, 5th and 6th Streets and gateway nodes. Local businesses support and incentivize bike, car ride-share programs, and other alternative modes of transportation, to further support efforts to reduce vehicle miles travelled and greenhouse gas emissions in the region.
- **Integrated Planning:** Collaboration between agencies and property owners occurs on a regular basis to identify catalyst sites to initiate new businesses, to encourage innovative development, and to develop joint solutions to issues that arise within the project area.

Overall, the purpose of developing a specific plan for the Airport Gateway Area is to align local and regional development objectives and implementation efforts for future land use, mobility, and economic development efforts in the multi-jurisdictional plan area.

The primary goal of the AGSP is to implement a collaborative effort, intended to provide a regulatory framework for the plan area that includes a comprehensive theme for the corridor, to refine land use and development codes, provides efficient and effective access to freeway corridors, improves infrastructure and drainage, and develops streetscape and design standards that support opportunities for transition and change within the planning area.

3.3 ENVIRONMENTAL SETTING

The AGSP planning area extends west to east on the north side of the SBIA as shown in Figure 3-2. For a variety of reasons, the planning area has not experienced much change in land use during the past 20 or more years even though areas to the west and south of the SBIA have made major transitions to logistics, warehouse and light industrial uses. Despite the AGSP's proximity to the thriving distribution centers developed on and west of the former Air Force base, under the provisions of the San Bernardino Alliance California Specific Plan, and despite the fact many of the parcels are vacant (which is generally appealing to buyers), it has not attracted a similar degree of economic development and reinvestment experienced by nearby properties since the closure and decommissioning of the base in 1994.

The AGSP site occupies a visually prominent and heavily trafficked location as the gateway to the Airport from the SR-210 freeway; however, the irregular jurisdictional boundaries, long and narrow configuration of the blocks, and the narrow lot depths have made economic development of the area more challenging than areas to the south and west that had larger parcel configurations and fewer site design obstacles to overcome prior to new construction.

The AGSP area is also located in a unique transition area between the established residential neighborhoods to the north, distribution centers to the southwest and the hard boundary of the SBIA to the south, creating a sort of narrow "no-man's land" in between all the uses. The proposed land uses in the Highland and San Bernardino General Plans envisioned light industrial, business park, general commercial and residential uses, but much of that vision never came to fruition partly because of the configuration of the properties in the project area (requiring significant lot consolidation of existing residential uses to create an industrial lot) and partly because demand for retail was not as strong in this area (shoppers opted to go to other locations along the Baseline Corridor or near the I-10 Freeway corridor, for example).

Existing land uses surrounding the AGSP project area include:

- North: Immediately north of 6th Street, single- and multi-family residential properties
- East: Immediately west of Interstate 210, industrial land uses
- South: SBIA and industrial uses
- West: Commercial, residential, and institutional

Elevations within the project area range from approximately from 1,470 feet to 1,500 feet above mean sea level (amsl). The terrain is level, with a gradual increase in elevation to the north and east. No distinctive topographic features exist within or adjacent to the project site. Surface runoff within the project area generally flows to the south and west. Under present circumstances the area contains a mix of uses, with large expanses of vacant land. Where undeveloped, the onsite soils have historically been used to support occasional dry farming activities. Most natural vegetation has been removed by past activities, and most trees and shrubs are found where limited human landscaping occurs. No rock outcrops are located in the project area. A small man-made drainage channel, City Creek Bypass, crosses through the central-southern portion of the planning area and continues west to a confluence with Twin Creek outside of the planning area. See Figure 3-3 for a high-resolution aerial photograph of the project area.

Resource specific descriptions of the environmental setting are provided in the "Environmental Setting" subsections of each subchapter of Chapter 4.

3.4 PROJECT CHARACTERISTICS

3.4.1 Existing and Proposed Land Uses

The primary physical change in the environment when adopting a new land use plan is the change in the mix of uses between the existing land uses and land use designations and the proposed land use designations. Figure 3-4 shows the existing land uses within the AGSP planning area and surrounding areas in the two cities. Table 3-1 provides estimates for the existing land uses within the AGSP planning area, while Table 3-2 provides a breakdown of the existing population and residences within the AGSP planning area. The existing land use category most affected by the difference in these two tables (Table 3-1 and 3-3) is “Vacant” land which comprises about 243 acres of the existing land within the project area. The total acreage within the AGSP planning area is 678.13 acres, so the approximately 243 acres of vacant land constitutes about 35.8% of the total acreage in the planning area. The specific uses that exist in the planning area are best shown in Figures 3-3 and 3-4.

Table 3-2 summarizes the proposed land uses within the AGSP planning area. The three uses envisioned in the future within the AGSP planning area are:

- Mixed Use Business Park
- Road Right-of-Way (ROW)
- Floodway

After extensive discussions among the AGSP participants, a decision was made to establish “Mixed Use Business Park” as the only future human-occupied land use within the planning area. A total of 468.29 acres of the planning area (approximately 468 acres used in future reference) are designated as Mixed-Use Business Park. The only other designations in the AGSP planning area are ROW (141.05 acres) and Floodway (68.6 acres). Based on the planning assumptions provided in the Table 3-3 Notes, including the allocated floor area ratios, a total of about 9,271,255.45 square feet (SF) (henceforth rounded to 9,271,256 SF) of non-residential development could be realized under the AGSP, and up to 75,000 SF of hotel (est. 150 rooms) could be constructed. This mix of uses is forecast to generate up to 5,097 new jobs within the AGSP.

In summary, the AGSP envisions replacing the existing mix of uses within the planning area (refer to Table 3-1, residential, commercial, educational, industrial, and vacant land) with approximately 9.27 million SF of Mixed-Use Business Park uses. To accomplish this land use transition within the AGSP would require development of up to about 225 acres of existing occupied acreage and conversion of about 243¹ acres of vacant land to Mixed Use Business Park uses. Also, due to the number of small parcels that exist within the AGSP, future developers and project proponents will have to assemble land parcels in order to fully develop the AGSP. The areas of most intense property consolidation in the AGSP must occur in the area between Tippecanoe and Del Rosa on the west and Victoria and Palm Avenue on the east. Also note that some of the existing industrial uses in the AGSP planning area may already be compatible with the future land use designations. However, for impact forecast purposes it will be assumed that all 468 acres designated Mixed Use Business Park (MUBP) will be developed/repurposed. Although the existing basic

¹ This estimate excludes some right-of-way (ROW) or floodway acreage listed in Table 3-1 below as the parcel maps for the area generated by the County of San Bernardino Parcel Map Viewer include such acreage as vacant acreage in some instances.

infrastructure facilities will be improved in the future (discussed below), there will not be a substantial increase in acreage allocated to them at buildout of the AGSP.

**Table 3-1
EXISTING LAND USE ESTIMATES¹
(EXCLUDING ROW AND FLOODWAY)**

Land Use Classification	TOTAL			CITY OF HIGHLAND			CITY OF SAN BERNARDINO		
	Acres	SF ²	Employment ³	Acres	SF ²	Employment ³	Acres	SF ²	Employment ³
Commercial ⁴	19.87	150,647	301	17.31	131,328	262	2.56	19,319	39
Educational Facilities ⁵	0.66	3,000	6	0.66	3,000	6	0	0	0
Industrial	75.72	526,915	176	60.11	418,289	140	15.61	108,626	36
Public Facilities	0.94	3,686	4	0.94	3,686	4	0	0	0
Vacant ⁶	290.21	N/A	N/A	116.67	N/A	N/A	173.54	N/A	N/A
Residential	127.96	N/A	N/A	100.65	N/A	N/A	3.66	N/A	N/A
Total	515.36⁷	684,248	487	296.34	556,303	412	195.37	127,945	75

Notes

- The data provided in the above table was derived from the San Bernardino County Parcel Map Viewer (<https://www.arcgis.com/apps/webappviewer/index.html?id=87e70bb9b6994559ba7512792588d57a>) and was cross referenced utilizing both Google Maps/Street View and a survey of the project area. Accessed in 2020 and early 2021.
- SF = square feet. The non-residential square feet is from the San Bernardino County Parcel Map Viewer (<https://www.arcgis.com/apps/webappviewer/index.html?id=87e70bb9b6994559ba7512792588d57a>). Accessed in 2020 and early 2021.
- Employment generation rates of 3,000 SF/job for industrial, 1000 SF/job for public facilities and 500 SF/job for Commercial and Educational Facilities were used. If industrial land uses were employee intensive than employment rate would be closer to 2,000 SF/job. If warehouses/distribution are highly automated, the employment rate would be closer to 4,000 SF/job. 3,000 SF/job has been applied as an average.
- Commercial properties generally consist of strip center commercial, gas station, offices, and hotel uses.
- Highland Head Start
- Vacant land includes some acreage that should be dedicated to ROW and floodway because some Assessors Parcel Numbers (APNs) are not broken down to exclude ROW and floodway acreage that may be adjacent to an existing use. As such, the actual vacant land to be developed by the project has been determined to be 243 acres.
- The total acreage provided includes, as with Vacant land discussed under item "6" above, superfluous acreage that is dedicated to ROW and floodway, and will remain dedicated to ROW and floodway under the propose AGSP. The acreage reflects the best estimate of existing uses as described under item 1, above.

**Table 3-2
EXISTING LAND USE ESTIMATES¹
RESIDENTIAL BREAKDOWN**

Residence Type	TOTAL			CITY OF HIGHLAND			CITY OF SAN BERNARDINO		
	Acres	Units ²	Population ³	Acres	Units ²	Population ³	Acres	Units ²	Population ³
Apartment/Condo	14.44	247	803	12.79	241	784	1.65	6	19
Duplex/Triplex/Quadplex	7.72	92	299	7.72	92	299	0	0	0
Mobile Home	1.49	40	130	1.49	40	130	0	0	0
Single Family Detached	104.31	381	1,239	100.65	375	1,220	3.66	6	19
Total	127.96	760	2,471	122.65	748	2,433	5.31	12	38

Notes

1. The data provided in the above table was derived from the San Bernardino County Parcel Map Viewer (<https://www.arcgis.com/apps/webappviewer/index.html?id=87e70bb9b6994559ba7512792588d57a>) and was cross referenced utilizing both Google Maps/Street View and a survey of the project area. Accessed in 2020 and early 2021.
2. The units have been calculated utilizing the San Bernardino County Parcel Map Viewer (<https://www.arcgis.com/apps/webappviewer/index.html?id=87e70bb9b6994559ba7512792588d57a>) and was cross referenced utilizing both Google Maps/Street View and a survey of the project area, as well as verification of units for large apartment buildings utilizing rental websites such as Zillow.com. Websites were accessed in 2020 and early 2021.
3. Existing population numbers are estimates calculated using 3.52 persons per household for both cities and a vacancy rate of 7.6 % for Highland and 9.0% for San Bernardino (DOF, Jan 2017)

**Table 3-3
PROPOSED LAND USE**

Land Use Designation	AGSP TOTAL						CITY OF HIGHLAND				CITY OF SAN BERNARDINO			
	Acres	Non-Residential SF	Hotel SF ⁸	Hotel Room ⁸	%	Employment ²	Acres	SF	%	Employment ²	Acres	SF	%	Employment ²
Mixed Use Business Park ^{1,2,3,4}	468.29	9,271,256 ⁹	75,000	150		5,097	322.15	6,444,864 ⁹		4,630	146.14	2,826,391 ⁹		1,189 ¹
Industrial Distribution ⁴	70.24	1,376,919			15	459	70.24	1,376,919	22	459		0		0
Industrial ⁴	327.8	6,425,623			70	2,142	191.31	3,750,100	59.4	1,250	136.49	2,675,523	93.4	892
Tech Business Park ⁵	60.88	1,325,922			13	2,210	60.29	1,313,191	18.7	2,189	0.58	12,731	0.4	21
Commercial ⁶	9.37	142,792			2	286	0.31	4,655	0.1	9	9.06	138,137	6.2	276
ROW ⁷	141.05	0					95.4				45.64			
Floodway	68.6	0					67.14				1.65			
Total	678.13	9,271,256⁹				5,097	484.7	6,444,864⁹		3,907	193.43	2,826,391⁹		1,189¹

1. Classifications from SANBAG (2012) which were derived from SCAG's original classifications.
2. Employment generation rates of 3,000 SF/job for industrial (warehousing/distribution), 600 SF/job for tech businesses/light industrial and 500 SF/job for Commercial uses were used. If industrial land uses were employee intensive than employment rate would be closer to 2,000 sq. ft/job. If warehouses/distribution are highly automated, the employment rate would be closer to 4,000 SF/job. 3,000 SF/job has been applied as an average. Assumes 100 hotel employees, see #8 below.
3. Mixed Use Business Park assumed to be 15% Industrial Distribution/ Logistics, 70% General/Light Industrial, 13% Tech Business Park, 2% Commercial/Retail/Service uses.
4. Industrial and distribution uses were assumed at a 0.45 FAR. The City of Highland General Plan assumes a maximum 0.45 FAR for industrial and business park and a maximum of 0.50 FAR for office uses. The San Bernardino General Plan assumes a maximum 0.75 FAR for heavy and light industrial uses, and an FAR of 1.0 for office parks. Based on the conceptual design concepts envisioned for the plan, the building footprints are anticipated to be closer to 0.45 FAR, which was applied to this Proposed Land Use buildout table as an average (the SP may allow a higher maximum per building so long as the total square footage assumed in this table is not exceeded).
5. A 0.50 FAR was used for Tech Business Park. Typically, Tech Business Park uses range in intensity from about 0.35-0.75 FAR. The AGSP assumes a .50 FAR as an average. 6. A 0.35 FAR was used for the Commercial use. The intensity could range between 0.30-0.50 FAR. The AGSP assumes a .35 FAR.
7. Right of way acreages reflect the existing alignment of 5th street. An alternative could remove existing public right of way along 5th Street between Tippecanoe and Central Ave. (approx 41.53 acres) to accommodate larger building footprints as a part of new distribution and warehousing uses envisioned in the plan. A few smaller streets will also likely be removed over time as existing residential parcels are consolidated and transition to industrial or tech business uses. These acreages also assume construction of a new alignment for 5th Street east of Victoria Ave. that re-routes traffic to a new connection down to 3rd Street. The actual acreage numbers for the ROW, floodway, and various land uses will likely vary depending on the design of the ultimate alignment. The acreage associated with the rerouting of 5th Street is estimated, as the ultimate alignment would be determined at a later date and may not precisely match the alignment reflected on the proposed plan (new alignment estimated to be about 90' wide, similar to existing ROW widths along 5th Street at Central Ave.).

8. Hotel estimated at about 500 gross sq. ft. per room (which includes walls, elevators, stairways, corridors, storage, and mechanical areas, etc.) Source: Planning and Programming a Hotel, Jan A. deRoos, Cornell University (2011) <http://scholarship.sha.cornell.edu/cgi/viewcontent.cgi?article=1293&context=articles> Hotel employees: <https://www.quora.com/How-many-employees-do-I-need-to-manage-a-150-room-hotel>
9. These numbers have been rounded to the nearest whole number.

3.4.2 Existing and Proposed Water Infrastructure

3.4.2.1 Water

a. Existing Supply & Distribution

Potable water will be provided to most of the Specific Plan area by East Valley Water District (EVWD). EVWD's existing supply sources consist of local groundwater, surface water from the Santa Ana River obtained through the North Fork Water Company, and imported water from the State Water Project (SWP). The Specific Plan area project is in a portion of EVWD's Lower Zone but mostly the project is in EVWD's Intermediate Zone. There is enough supply to meet existing demands under maximum day demand (MDD) conditions. The largest single source analysis from EVWD's 2019 Water Supply Master Plan (WSMP) indicates there are supply deficits in the Lower Zone and Intermediate Zone if the largest single source is out of service during MDD conditions. However, the ability to transfer water from other zones would allow these supply deficits to be mitigated in the unlikely event that these extreme conditions occur.

EVWD operates existing water distribution infrastructure located throughout the Specific Plan area with major east-west pipelines in 6th Street, some pipelines in 5th Street and some pipelines in 3rd Street. Within the project area there are six (6) active wells and four (4) pump stations all within the Lower and Intermediate Zones. The Lower Zone is west of Sterling Avenue and the Intermediate Zone is east of Sterling Avenue to Palm Avenue. The backbone water system in the Specific Plan area includes:

- A 12-inch cement line and coated water main located in 6th Street traverses the length from Tippecanoe Street to Sterling Street.
- A 36-inch ductile iron line starting at Indian Springs High School located along 6th Street and the pipeline traverses east to Grape Street. As part of the SNRC Project, the segment of this ductile iron line west of Sterling Avenue will be converted to a recycled water line.
- An 8-inch ductile iron line located in 6th Street from Victoria Avenue to Alabama Avenue.
- A 6-inch ACP line located in 6th Street from Victoria Avenue to Alabama Avenue.
- A 12-inch ductile iron line located in 5th Street traverses the length from Tippecanoe Street to 1,000 feet east of Del Rosa Drive.
- A 6 5/8-inch cement line and coated water main located in 5th Street immediately north of San Bernardino Airport supplied by Plant 141.
- A combination of 8-inch and 16-inch ductile iron line located in 4th Street transverses the length from Tippecanoe Street to the termination at San Bernardino International Airport.
- A 12-inch ductile iron line located in 3rd Street traverses the length from Tippecanoe Street to Shirley Avenue.
- A 16-inch ductile iron line located in 3rd Street immediately north of San Bernardino Airport supplied by Plant 141.
- An 8-inch ACP and ductile iron line located in 3rd Street from Victoria Avenue to Alabama Avenue.

The City of San Bernardino Municipal Water Department (SBMWD) does not supply water to the City of Highland; however, SBMWD supplies water to portions of the City of San Bernardino and unincorporated areas of the San Bernardino County including infrastructure within the 3rd Street and 5th Street Specific Plan area. At the intersection of Tippecanoe Avenue and 3rd Street there is an intertie with the Specific Plan area via a 12-inch pipeline. The 12-inch pipeline continues east on 3rd Street and terminates east of Del Rosa Drive. This 12-inch pipeline supplies the City's distribution system south of 3rd Street, specifically for the San Bernardino International Airport.

The existing water infrastructure system is generally shown in Figure 3-5 and existing water pipelines by diameters are shown in Figure 3-6.

b. Proposed Supply & Distribution

Based on the 2019 WSMP Build-Out Water System Improvements, which are outlined in Chapter 8 therein, there are no transmission pipeline recommendations. The water system improvements based on the 2019 WSMP build-out evaluation within the Specific Plan area are the following projects:

- **Project 1** - 3.5 MG storage reservoir located in the Lower Zone;
- **Project 2** - New Well 01 in the Intermediate Zone.

These recommended improvements to the existing EVWD system will be installed to enhance the existing robust distribution system to meet modern industry standards.

3.4.2.2 Wastewater

a. Existing Collection System

The existing sewer system consists of approximately 213 miles of pipeline, 4,500 sewer manholes, 7 siphons, and 5 diversion structures. The existing sewer system conveys flows into the East Trunk Sewer which presently outlets to the San Bernardino Water Reclamation Plant (SBWRP) until the Sterling Natural Resource Center (SNRC) is completed. The existing sewer system including transmission and collection pipeline, siphons, and manholes has been evaluated. The evaluation included existing and future conditions for deficiencies and to identify areas for improvements.

EVWD's sewer pipeline network includes approximately 213 miles of pipeline ranging in size from 4 inches to 24 inches in diameter. The East Trunk Sewer is approximately 9 miles long ranging in size from 8 inches to 54 inches in diameter. EVWD's system, including the East Trunk Sewer, encompasses nine siphons to convey flows under creeks and flood control channels. EVWD has five diversion structures in its sewer collection system. Diversion structures are generally installed in manholes to divert flows along a specific route in case of a blockage in the system or during times of high flow. EVWD's sewer system does not include any lift stations or force mains. All flow is conveyed by gravity to the East Trunk Sewer.

EVWD maintains all of the sewer pipes in the Specific Plan area, which are gravity collection system pipelines made of a variety of sizes made mostly of vitrified clay pipe (VCP). The majority of the pipelines were installed between 1960 and 1980. A few segments were built at a later date. The backbone wastewater system in the Specific Plan area includes:

- A 24-inch VCP located in 6th Street traverses the length from Tippecanoe Street to Elm Street.
- A 21-inch VCP located in 6th Street traverses the length from Elm Street to Victoria Avenue.
- A 10-inch VCP located in 6th Street traverses the length from Victoria Avenue to Cunningham Street.
- An 8-inch VCP located in 6th Street traverses the length from Cunningham Street to Central Avenue.
- An 8-inch VCP located in 5th Street starting at Marilyn Avenue to 214 feet east of Shirley Avenue.
- A 21-inch VCP located in 5th Street traverses the length from Victoria Avenue to Cunningham Street.
- A 24-inch VCP located in 5th Street traverses the length from Cunningham Street to Route 10
- An 8-inch VCP located in 4th Street starting at Marilyn to 214 feet east of Shirley Avenue.
- There are new sewer pipes in 3rd Street.

b. Proposed Collection System

EVWD Sewer System Master Plan (SSMP) was updated in early 2019. According to the SSMP the objective was to evaluate the collection system capacity and provide a general assessment of the condition of the existing sewer collection system in order to develop a comprehensive 20-year CIP. The 20-year CIP includes pipeline condition and capacity improvement projects, long range maintenance program considerations, as well as conveyance needs. The recommended CIP was the basis for wastewater rate evaluations and long-range financial plans to be completed in separate financial studies. The final recommendations of the SSMP are located in Chapter 8 of the SSMP. In Chapter 9 of the SSMP, unit costs were developed for pipelines. Engineering, construction, and total project costs were developed for the capacity and condition projects. The recommended CIP includes both capacity and condition related capital projects and recommendations on further studies.

Within the Specific Plan area, the recommended projects are:

Project E-1 which is to upsize 5,900 feet of 27 to 48-inch pipe with 36 to 54-inch pipe, including a possible siphon upsize

Project E-4 which is to upsize 15,000 feet of 21 to 24-inch pipe with 30-inch pipe starting at Tippecanoe Street on 6th Street which would traverse east to Victoria Street then south to 5th Street then traverse east on 5th Street to Palm Avenue.

Project B-2 which is to upsize 2,200 feet of 15-inch pipe with 18-inch pipe, including a possible siphon upsize.

Refer to Figure 3-7 for the Recommended Capacity Projects as outlined in the 2019 EVWD Sewer Master Plan. Chapter 6 of the SSMP describes how the new interceptor sewer to direct flows to the Sterling Natural Resource Center will relieve flows from the pipeline associated with the projects listed above. Consequently, these projects are not anticipated to be necessary.

3.4.2.3 Recycled Water

EVWD is currently constructing the Sterling Natural Resource Center (SNRC), which will be a state-of-the-art water recycling facility in the City of Highland that will provide a sustainable new water supply to boost the region's water independence. The SNRC is being constructed on a 14-acre parcel of land located at North Del Rosa Drive between East 5th Street and East 6th Street.

The SNRC Treatment Facility would be located on the eastern property while the Administration Center would be located on the western parcel. The recycled water conveyance pipelines would be constructed along the existing rights-of-way within 6th Street. SNRC will be capable of treating up to 10 million gallons a day, the SNRC is being implemented to recharge the local Bunker Hill Groundwater Basin and will provide community education, training space, neighborhood improvements, and new habitat for the Santa Ana Sucker fish. The SNRC will produce Title 22 recycled water but will not be a source to serve the Plan Area since all of the recycled water produced at the SNRC is designed to be used for groundwater recharge. In order to ensure that the Plan Area is designed to utilize all available natural resources in a sustainable manner, all non-potable water uses shall be designed to accommodate and utilize recycled water if it should become available in the future. The City Engineers of the two cities shall have the authority, but shall not be required to waive the requirement if they deem such a design requirement is feasible.

3.4.3 Existing and Proposed Dry Utilities / Services

3.4.3.1 Solid Waste and Recycling

The City of San Bernardino Department of Public Works, Street Maintenance and Integrated Waste Management Division (Division) has contracted with Burrtec Waste Industries (Burrtec) to be responsible for solid waste collection and disposal. The City of Highland has also contracted with Burrtec. The contractors from both the Division and the City of Highland are responsible for the solid waste collection and disposal from all residential properties within each respective City within the Specific Plan area and competes with private haulers for commercial collection services. The Division and City of Highland also manages a curbside recycling program, which includes collection of paper and cardboard, cans/aluminum, plastic, and glass. The recyclable materials are taken to number of recycling facilities that are contracted with the Division, City of Highland and unincorporated areas of the County.

For existing and new development within the Specific Plan area, the Division, City of Highland and unincorporated areas of the County via the San Bernardino County Waste System Division will continue to push solid waste and recycling efforts to move toward minimizing waste sent to landfills and reducing solid waste disposed per capita, as identified in their respective Action Plans/Ordinances. This includes expanding public outreach programs that focus on recycling and composting education.

3.4.3.2 Electricity

Electricity for the Specific Plan area is currently being served by Southern California Edison (SCE). SCE's power plants are capable of supplying 100 percent of the City of Highland, City of San Bernardino and unincorporated areas of the San Bernardino County electricity needs.

Because the Specific Plan area is linked to the state power grid, the City of Highland, City of San Bernardino and unincorporated areas of the San Bernardino County had its share of power interruptions during the peak energy crisis in 2001. Under an agreement with the California Independent System Operator (ISO), SCE must reduce its load if instructed to do so by the ISO during a Stage III power emergency. Such an emergency occurred most recently in March 2001, requiring SCE to temporarily interrupt electric service to some of its customers. Buildout of the Specific Plan area will not have a significant impact on availability of energy resources in the City of Highland, City of San Bernardino and unincorporated areas of the San Bernardino County.

3.4.3.3 Natural Gas

Natural gas for the Specific Plan area is currently being served by the Southern California Gas Company (SoCal Gas). SoCal Gas has a number of underground pipelines in the Specific Plan area including:

- An 8-inch pipeline located in 6th Street traverses east the length from Tippecanoe Street to Victoria Avenue.
- A 3-inch pipeline located in 6th Street traverses east the length from Cunningham to Central Avenue.
- A 2-inch pipeline located in 5th Street traverses east the length from Tippecanoe Street to Roberts.
- A 2-inch pipeline located in 5th Street traverses east the length from Victoria Avenue to 500 feet from Central Avenue.
- A 2-inch pipeline located in 5th Street traverses east the length from Central Avenue to Palm Avenue.
- A 4-inch pipeline located in 5th Street traverses east from Church Avenue to Route 210.
- A 2-inch pipeline located in 4th Street traverses east the length from Tippecanoe Street to the termination of 4th Street.
- A 2-inch pipeline located in 3rd Street traverses the length from Tippecanoe Street to Sterling Street.
- An 8-inch pipeline located in 3rd Street traverses east the length from Victoria Avenue to Alabama Street.
- A 6-inch pipeline located in 3rd Street traverses east the length from Alabama Street/Palm Avenue to Church Avenue/5th Street intersection.

3.4.3.4 Cable TV / Internet

Time Warner has above and underground utilities in 6th Street from Tippecanoe Street to Sterling Avenue as well as above ground utilities in 5th Street from Tippecanoe Street to residences located between Del Rosa Drive and Sterling Avenue. Time Warner has above ground utilities in 6th Street from Lankershim Avenue to Central Avenue. MCI (Verizon) and Terradex have no above or underground utilities in the Specific Plan area.

3.4.3.5 Telephone / Internet

AT&T has above ground utilities (via cables) and underground utilities within conduits within the Specific Plan area located in 3rd Street, 5th Street and 6th Street. Both above ground and underground utilities are located in 6th Street from Tippecanoe Street to Victoria Avenue as well as conduit located in 5th Street starting at Victoria Avenue traversing east terminating before Cunningham. Conduit is located within Central Avenue and Palm Street from 6th Street to 4th Street. Conduit and underground utilities are located in 5th Street from Church Avenue to Route 210. Conduit is located in 3rd Street starting at Victoria Avenue and terminates at Palm Avenue.

Dry utility services throughout the Specific Plan area will be provided through the existing backbone system. Dry utilities are generally constructed in a common trench within the street right-of-way or an adjacent easement. The final layout and design of the Specific Plan area will need to accommodate the linear dry utilities as well as ancillary features such as junction boxes, transformers, etc.

3.4.4 Existing and Proposed Drainage System

The existing drainage system in the project area is fairly rudimentary. Figure 3-8 identifies the Specific Plan Area, the overall watershed area of the project improvements, existing storm drain systems, proposed storm drain systems and infrastructure storm drain systems identified by Comprehensive Storm Drain Plan #6 (CSDP #6) prepared by San Bernardino County Flood Control District. Storm water runoff within the area flows to the south over a very shallow grade. The information that follows is abstracted from a study of the area hydrology by JLC Engineering & Consulting, Inc, titled "Preliminary Hydrology and Channel Design for City Creek By-Pass Channel," April 20, 2020. The City Creek Bypass Channel is located along 3rd and 5th Streets and extends from Warm Creek Channel on the west (terminus) and terminates at City Creek Channel just north of the State Route 30 (SR-210) and 5th Street Interchange. Refer to aerial photo in Figure 3-8 for a depiction of the Bypass Channel alignment. Additionally, the watershed area has existing storm drains that collect runoff from the watershed area located within Palm Avenue and Central Avenue. The existing storm drains and street sections collect surface runoff and convey the runoff into City Creek.

Coordination with local agencies has resulted in the identification of a proposed storm drain system that is located within Victoria Avenue. The storm drain system is currently under a Plan, Specification, and Estimate (PS&E) process with the City of Highland. The intent of the PS&E process is to develop a package that obtains CEQA clearances, design approvals and construction estimate to allow the project to be constructed.

The study describes the existing channel and concludes that downstream of the Victoria Avenue-City Creek Bypass Channel it is insufficient to convey the 100-year flood flows in its current configuration. The study includes a new channel design (two alternatives) that will need to be installed to have sufficient capacity to convey the future 100-year flood flows between Victoria Avenue (just north of the Airport and south of 3rd Street) and the Warm Creek Channel. Figure 3-9 show the alternative channel designs and acknowledges that these designs are preliminary and not ready for construction. The channel alternatives are defined in detail in the study. For planning and impact forecast purposes it is assumed that a maximum of one-half mile of new channel will be installed in any given year. Moreover, Figure 3-8 has identified the storm drain infrastructure that will be required to provide flood protection for the surrounding Specific Plan Area based on the CSDP #6. The purpose of the storm drain infrastructure is to provide flood protection and to meet the street design policies within the City of San Bernardino and the City of Highland. The following CSDP #6 system that protects the project area are as follows:

- 6-C1-01 which is a storm drain system that varies in diameter from 36-inches to 48-inches in diameter. The system extends along Tippecanoe Avenue to 5th Street.
- 6-C1-03 which is a storm drain that varies in diameter from 42-inches to 81-inches in diameter. The storm drain extends Sterling Avenue and 6th Street.

It should be noted that 6-WA-03, located within 6th Street, is adjacent to the northerly boundary of the Specific Plan Area. Based on the topographic contours for the watershed area, the runoff flows to the west towards Warms Creek. The Specific Plan Area will not require this system to ensure flood protection since 6th Street separately collects and conveys the runoff to Warm Creek Channel.

Finally, the CSDP #6 is a conceptual design that identifies regional infrastructure required within an area. The conceptual design provides a potential solution that would provide flood protection

for an area and where the runoff from the watershed area needs to be directed. During final engineering, the solution provided by the CSDP #6 may not be viable due to constraints associated with utilities, right-of-way, topography or other unknown constraints. As a result, future projects may provide an alternative solution that meets the intent of the CSDP #6 design concept.

3.4.5 Existing and Proposed Circulation System Infrastructure

The AGSP project area contains a substantial existing circulation system, which currently has many roadways with older, deteriorating pavement. Figure 3-10 shows the circulation system in the area surrounding the Specific Plan area. The City of San Bernardino General Plan Circulation Plan and the City of Highland General Plan Circulation Element provide roadway designations for the roadway system serving the Specific Plan area and the surrounding vicinity. A copy of the City of San Bernardino Circulation Plan and Standard Cross Sections are provided on Figures 3-11a and 3-11b. A copy of the City of Highland Circulation Element and Standard Cross Sections are provided on Figures 3-12a and 3-12b. Regional access to the AGSP area is provided primarily by the Interstate 215 (I-215) Freeway, located approximately 2 miles to the west of the Specific Plan area. In addition, the I-10 Freeway is located approximately 3 miles to the south of the project. State Route 210 (SR-210) is oriented in an east-west direction approximately 2.5 miles to the north of the Specific Plan area, and then turns southward and is oriented in a north-south direction adjacent to the Specific Plan eastern boundary.

3.4.5.1 Current Street System

The existing street system in the general area and in the Specific Plan area is described in the following text. Table 3-4 (Table 2 of the Traffic Impact Study, "TIS") contains a summary of current roadway configurations for the AGSP.

Waterman Avenue is a north-south roadway that provides two to three lanes in each direction, with either a raised median or a center two-way left-turn lane in the project vicinity. The speed limit is 40 miles per hour (MPH) and on-street parking is prohibited on both sides. Waterman Avenue is designated on the City of San Bernardino's Circulation Plan as a Major Arterial.

Tippecanoe Avenue is a north-south roadway that provides two to three lanes in each direction, with either a raised median or a center two-way left-turn lane. Tippecanoe Avenue will form the westernmost boundary of the Specific Plan area. The speed limit ranges from 30 to 45 MPH and on-street parking is prohibited on both sides. Tippecanoe Avenue is designated on the City of San Bernardino's Circulation Plan as a Secondary Arterial north of 3rd Street and a Major Arterial south of 3rd Street; Tippecanoe Avenue is designated on the City of Highland's Circulation Element as a Secondary Highway.

Del Rosa Drive is a north-south roadway that provides one to two lanes in each direction, with either a raised median or a center two-way left-turn lane in the project vicinity. Del Rosa Drive extends through and beyond the Specific Plan boundary in both the north and south directions. The speed limit ranges from 35 to 45 MPH, with a 25-MPH school zone from Baseline Street to 6th Street. Del Rosa Drive is designated on the City of San Bernardino's Circulation Plan as a Major Arterial and is designated on the City of Highland's Circulation Element as a Secondary Highway.

Sterling Avenue is a north-south roadway that provides two lanes in each direction, with a center two-way left-turn lane in the project vicinity. Sterling Avenue starts at 3rd Street, and extends northward through and beyond the Specific Plan boundary. The speed limit is 40 MPH. Sterling

Avenue is designated on the City of San Bernardino's Circulation Plan as a Major Arterial and is designated on the City of Highland's Circulation Element as a Major Highway.

Victoria Avenue is a north-south roadway that provides two lanes in each direction, with a center two-way left-turn lane in the project vicinity. Victoria Avenue extends through and beyond the Specific Plan boundary in both the north and south directions. The speed limit ranges from 40 to 45 MPH and on-street parking are prohibited on both sides. Victoria Avenue is designated on the City of San Bernardino's Circulation Plan as a Secondary Arterial and is designated on the City of Highland's Circulation Element as a Major Highway.

6th Street is an east-west undivided roadway that provides one travel lane in each direction. 6th Street will form the northern boundary of the Specific Plan area from Tippecanoe Avenue to Central Avenue. The posted speed limit is 40 MPH, with a 25-MPH school zone from Tippecanoe Avenue to Del Rosa Drive. 6th Street is designated as a Collector Street on the City of San Bernardino's Circulation Plan and on the City of Highland's Circulation Element.

5th Street is an east-west roadway that provides one to two lanes in each direction in the project vicinity, with a center two-way left-turn lane in some sections. 5th Street provides a direct connection to both the I-215 Freeway to the West and the SR-210 Freeway to the East. 5th Street will traverse the entire length of the Specific Plan area and will have development on both sides of the street. The speed limit ranges from 40 to 45 MPH, with a 25-MPH school zone to the east of Waterman Avenue. 5th Street is designated on the City of San Bernardino's Circulation Plan as a Major Arterial and is designated on the City of Highland's Circulation Element as a Major Highway.

3rd Street is an east-west roadway that provides two lanes in each direction, with a center two-way left-turn lane. The speed limit ranges from 45 to 50 MPH. 3rd Street is designated on the City of San Bernardino's Circulation Plan as a Major Arterial and is designated on the City of Highland's Circulation Element as a Primary Arterial. 3rd Street will form the southern boundary of the Specific Plan area from Tippecanoe Avenue to its eastern terminus.

3rd Street currently dead-ends southwest of the intersection of 5th Street at Church Avenue, in the City of Highland. The City has approved an improvement project that will connect 3rd Street to 5th Street to the east and west of Church Avenue. The future connection to the east of Church Avenue will allow eastbound traffic on 3rd Street to merge onto eastbound 5th Street. The connection to the west of Church Avenue will allow limited access from 5th Street to westbound 3rd Street. The timing for completion of this improvement is uncertain, but is scheduled for the near future.

3.4.5.2 Existing Transit Service

Transit service to the project area is provided by OmniTrans, which serves the Cities of San Bernardino, Highland and other surrounding cities. Currently, only Route 15 travels on any of the streets within the Specific Plan area.

OmniTrans Route 15 operates between the City of Redlands and the City of Fontana, traveling through the Specific Plan area along Tippecanoe Avenue, Del Rosa Avenue, Central Avenue, and Palm Avenue. Key stops along Route 15 include the San Bernardino County Court Building, Redlands Mall, San Bernardino Stadium, San Bernardino Valley College, Fontana Metrolink, and the San Bernardino Transit Center. At the San Bernardino Transit Center, passengers can

transfer to other OmniTrans routes, as well as to Riverside Transit (RTA), Mountain Transit, Pass Transit, and Victor Valley Transit Authority (VVTA) routes, or to Metrolink.

Route 15 operates on weekdays from 6:40 AM to 10:40 PM with approximately 30-minute headways (the time between bus arrivals), and on Saturdays and Sundays from approximately 6:40 AM to 7:25PM with approximately 1-hour headways.

The OmniTrans bus stops located closest to the Specific Plan area are as follows:

- Tippecanoe Avenue at 3rd Street
- Del Rosa Drive at 3rd Street
- Del Rosa Drive at 6th Street
- Central Avenue at 5th Street

3.4.5.3 Future Street System

The TIS provides an evaluation of the future roadway configurations (Year 2040) for the same roadways in Table 3-4. Table 3-5 provides a summary of roadway segments with expanded configurations to carry more traffic. The following summary of the differences between current and future road cross-sections is an indication of the new roadways that will have to be in place by 2040 to support AGSP and cumulative traffic growth in the project area. If no changes are necessary, a roadway segment does not need to be modified over this time period based on the TIS.

TIPPECANOE AVENUE

Roadway Segment: Mill Street to Orange Show Road/San Bernardino Avenue

Current Configuration: 4 Lanes Divided
2040 Mitigated Configuration: 6-Lane Divided Major

DEL ROSA DRIVE

Roadway Segment: Highland Avenue to Pacific Street

Current Configuration: 2 Lanes Undivided
2040 Mitigated Configuration: 4-Lane Divided Major

6th STREET

Roadway Segment: Del Rosa Drive to Sterling Avenue

Current Configuration: 2 Lanes Divided
2040 Mitigated Configuration: 4-Lane Undivided Collector
Roadway Segment: Sterling Avenue to Victoria Avenue

Current Configuration: 2 Lanes Divided
2040 Mitigated Configuration: 4-Lane Undivided Collector

Roadway Segment: Sterling Avenue to Victoria Avenue

Current Configuration: 2 Lanes Divided
2040 Mitigated Configuration: 4-Lane Undivided Collector

5th STREET

Roadway Segment: I-215 NB Ramps to E Street

Current Configuration: 2 Lanes Divided
2040 Mitigated Configuration: 6-Lane Divided Major

Roadway Segment: E Street to Waterman Avenue

Current Configuration: 4 Lanes Divided
2040 Mitigated Configuration: 6-Lane Divided Major

Roadway Segment: Waterman Avenue to Tippecanoe Avenue

Current Configuration: 2 Lanes Undivided
2040 Mitigated Configuration: 6-Lane Divided Major

Roadway Segment: Tippecanoe Avenue to Del Rosa Drive

Current Configuration: 2 Lanes Undivided
2040 Mitigated Configuration: 6-Lane Divided Major

Roadway Segment: Sterling Avenue to Victoria Avenue

Current Configuration: 2 Lanes Undivided
2040 Mitigated Configuration: 6-Lane Divided Major

Roadway Segment: Victoria Avenue to Central Avenue

Current Configuration: 4 Lanes Divided
2040 Mitigated Configuration: 6-Lane Divided Major

Roadway Segment: Central Avenue to Palm Avenue

Current Configuration: 4 Lanes Divided
2040 Mitigated Configuration: 6-Lane Divided Major

Roadway Segment: Palm Avenue to SR-210 EB Ramps

Current Configuration: 4 Lanes Divided
2040 Mitigated Configuration: 6-Lane Divided Major

3rd STREET

Roadway Segment: Del Rosa Drive to Sterling Avenue

Current Configuration: 4 Lanes Divided
2040 Mitigated Configuration: 6-Lane Divided Major

The preceding roadway segments represent about six to six and one-half miles of new roads that will need to be installed over the estimated 20-year period. It is anticipated that as individual mixed industrial projects are implemented, roadway improvements will be installed as part of off-site improvements required through the entitlement process from both cities. However, local IVDA or local jurisdictions may be able to obtain grants or funding for specific roadway segments as identified above. This document evaluates the installation of one-half mile of new lane addition, plus curb and gutter improvements, as a baseline to conduct a programmatic impact analysis.

**Table 3-4
SUMMARY OF ROADWAY SEGMENT ANALYSIS
EXISTING CONDITIONS**

Roadway	Segment	Jurisdiction	Existing Configuration	LOS E Capacity ¹	Existing ADT ²	V/C	LOS
Waterman Avenue	Baseline Street to 5th Street	SB	4 Lanes Divided	40,000	25,741	0.644	E
	5th Street to 3rd Street	SB	6 Lanes Divided	60,000	27,528	0.459	A
Tippecanoe Avenue	Baseline Street to 6th Street	SB / H	4 Lanes Undivided	30,000	12,006	0.400	A
	6th Street to 3rd Street	SB / H	4 Lanes Undivided	30,000	14,330	0.478	A
	3rd Street to Mill Street	SB	6 Lanes Divided	60,000	28,362	0.473	A
	Mill Street to Orange Show Road / San Bernardino Avenue	SB	4 Lanes Divided	40,000	32,591	0.815	D
	Orange Show Road / San Bernardino Avenue to Harriman Place / I-10 WE Ramps	SB	6 Lanes Divided	60,000	25,471	0.425	A
Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	SB	4 Lanes Divided	40,000	23,780	0.595	A
	Highland Avenue to Pacific Street	SB	2 Lanes Undivided	12,000	17,645	1.470	F
	Pacific Street to Baseline Street	SB / H	4 Lanes Undivided	30,000	12,318	0.411	A
	Baseline Street to 9th Street	SB / H	4 Lanes Divided	40,000	9,963	0.249	A
	9th Street to 6th Street	SE	4 Lanes Divided	40,000	9,871	0.247	A
	6th Street to 3rd Street	SB / H	4 Lanes Undivided	30,000	9,576	0.319	A
Sterling Avenue	Base Line to 9th Street	H	4 Lanes Divided	40,000	13,368	0.334	A
	9th Street to 6th Street	H	4 Lanes Divided	40,000	10,609	0.265	A
	6th Street to 3rd Street	SB / H	4 Lanes Divided	40,000	6,984	0.175	A
Victoria Avenue	Highland Avenue to Pacific Street	H	4 Lanes Divided	40,000	12,184	0.305	A
	Pacific Street to Base Line	H	4 Lanes Divided	40,000	14,431	0.361	A
	Base Line to 9th Street	H	4 Lanes Undivided	30,000	11,210	0.374	A
	9th Street to 6th Street	H	4 Lanes Undivided	30,000	8,368	0.279	A
	6th Street to 3rd Street	SB / H	4 Lanes Undivided	30,000	8,368	0.279	A
6th Street	Tippecanoe Avenue to Del Rosa Drive	SB / H	2 Lanes Undivided	10,000	3,249	0.325	A
	Del Rosa Drive to Sterling Avenue	H	2 Lanes Undivided	10,000	4,714	0.471	A
	Sterling Avenue to Victoria Avenue	SB / H	2 Lanes Undivided	10,000	3,519	0.352	A
	Victoria Avenue to Central Avenue	H	2 Lanes Undivided	10,000	4,047	0.405	A
5th Street	I-215 NB Ramps to E Street	SB	4 Lanes Divided	40,000	30,975	0.774	C
	E Street to Waterman Avenue	SB	4 Lanes Divided	40,000	20,083	0.502	A
	Waterman Avenue to Tippecanoe Avenue	SB	2 Lanes Undivided	15,000	9,167	0.611	B
	Tippecanoe Avenue to Del Rosa Drive	H	2 Lanes Undivided	15,000	8,725	0.582	A
	Del Rosa Drive to Sterling Avenue	SB / H	4 Lanes Undivided	40,000	5,595	0.140	A
	Sterling Avenue to Victoria Avenue	SB / H	2 Lanes Undivided	15,000	3,911	0.261	A
	Victoria Avenue to Central Avenue	H	4 Lane Divided	40,000	9,939	0.248	A
	Central Avenue to Palm Avenue	H	4 Lane Divided	40,000	9,939	0.248	A
	Palm Avenue to SR-210 EB Ramps	H	4 Lanes Divided	40,000	26,098	0.652	B
3rd Street	Waterman Avenue to Tippecanoe Avenue	SB	4 Lanes Divided	40,000	10,460	0.262	A
	Tippecanoe Avenue to Del Rosa Drive	SB / H	4 Lanes Divided	40,000	15,620	0.391	A
	Del Rosa Drive to Sterling Avenue	SB / H	4 Lanes Divided	40,000	18,143	0.454	A
	Sterling Avenue to Victoria Avenue	SB	4 Lanes Undivided	40,000	13,457	0.336	A
	Victoria Avenue to Palm Avenue	SB / H	4 Lanes Divided	40,000	10,714	0.268	A

Notes: ¹ Source: City of San Bernardino General Plan Update (2005)
² Existing daily traffic volumes include passenger car equivalent (PCE) factors for trucks: 2-axle - 2.0; 3-axle - 2.5; 4+-axle - 3.0
LOS = Level of Service ADT = Average Daily Traffic V/C = Volume-to-Capacity
Jurisdiction: SB = San Bernardino, H = Highland, SB / H = Portions of the roadway segment are in both cities

Source: Kimley Horn, Traffic Impact Study, April 2020

**Table 3-5
 SUMMARY OF ROADWAY SEGMENT ANALYSIS WITH MITIGATION
 FUTURE BUILD-OUT 2040 PLUS PROJECT**

Roadway	Segment	Jurisdiction	Mitigated Roadway Configuration	Mitigated LOS E Capacity ¹	Future Build-Out 2040 ADT	Project ADT	Future Build-Out 2040 Plus Project ADT	V/C	LOS
Tippecanoe Avenue	3rd Street to Mill Street	SB	6-Lane Divided Major	60,000	43,928	9386	53,314	0.889	D ²
	Mill Street to Orange Show Road / San Bernardino Avenue	SB	6-Lane Divided Major	60,000	47,921	9,386	57,307	0.955	E ³
Del Rosa Drive	Highland Avenue to Pacific Street	SB	4-Lane Divided Major	40,000	19,585	2,300	21,885	0.547	A
6th Street	Del Rosa Drive to Sterling Avenue	H	4 Lane Undivided Collector	30,000	7,501	2,960	10,461	0.349	A
	Sterling Avenue to Victoria Avenue	SB / H	4-Lane Undivided Collector	30,000	8,278	6,532	14,810	0.494	A
	Victoria Avenue to Central Avenue	H	4-Lane Undivided Collector	30,000	5,844	6,871	12,715	0.424	A
5th Street	I-215 NE Ramps to E Street	SB	6-Lane Divided Major	60,000	37,481	11,800	49,281	0.821	D ³
	E Street to Waterman Avenue	SB	6-Lane Divided Major	60,000	22,657	11,800	34,457	0.574	A
	Waterman Avenue to Tippecanoe Avenue	SB	6-Lane Divided Major	60,000	13,621	12,566	26,187	0.436	A ⁴
	Tippecanoe Avenue to Del Rosa Drive	H	6-Lane Divided Major	60,000	14,297	14,537	28,834	0.481	A ⁴
	Sterling Avenue to Victoria Avenue	SB / H	6-Lane Divided Major	60,000	8,476	21,993	30,469	0.508	A ⁴
	Victoria Avenue to Central Avenue	H	6-Lane Divided Major	60,000	11,954	22,319	34,273	0.571	A
	Central Avenue to Palm Avenue	H	6-Lane Divided Major	60,000	11,912	25,092	37,004	0.617	B
3rd Street	Palm Avenue to SR-210 EB Ramps	H	6-Lane Divided Major	60,000	33,870	24,646	58,516	0.975	E ³
	Del Rosa Drive to Sterling Avenue	SB / H	6-Lane Divided Major	60,000	34,523	9,786	44,309	0.738	C
<p>Notes: ¹ Source: City of San Bernardino General Plan Update (2005) ² Roadway segment is currently built to ultimate configuration. ³ Based on standard cross section for the roadway segment, based on the City's General Plan, does not provide enough roadway width for an 8-lane roadway. ⁴ For consistency with adjacent roadway segments, a 6-lane divided roadway is recommended. However, a 4-lane divided roadway would yield an acceptable Level of Service. LOS = Level of Service ADT = Average Daily Traffic V/C = Volume-to-Capacity</p>									

Source: Kimley Horn, Traffic Impact Study, April 2020

3.5 PHASING AND CONSTRUCTION

The Specific Plan is envisioned to be developed over a period of about 20 years in an incremental manner. Thus, no phasing is envisioned at the current time. This applies to both the Mixed-Use Business Park uses and the infrastructure required to support future development within the specific plan area. There will be no mass grading in support of the Specific Plan until specific projects are approved and built in the future. On the other hand, it is possible that to support the Specific Plan some form of Community Facilities District or other funding mechanism may be established to fund infrastructure improvements that will be needed for the project area.

Also, at this time there are no specific construction projects envisioned. Therefore, instead of evaluating a specific proposed future project, this document will evaluate prospective future projects such as:

- The construction of a 500,000 square foot light industrial warehouse
- Installation of one mile of water, underground electric power line, natural gas, or sewer pipeline, assumed to be 18" to 24" diameter, total for the year
- Construction of one-half mile of new roadway, lane-width assumed to be 12 feet with curb and gutter
- Installation of one-half mile of the ultimate City Creek Bypass Channel design

Detailed construction scenarios will be described in the air quality and other subchapters where the type of equipment and area of disturbance are important. The following development standards for grading will be observed:

- a. Prior to any development within the Specific Plan area, an overall preliminary grading plan for the planning area in process shall be submitted to the pertinent Community Development Department and Public Works Engineering Department for approval. The grading plan for each such area shall be used as a guideline for subsequent detailed grading plans for individual stages of development within that area and shall include:
 - i. Techniques employed to prevent erosion and sedimentation during and after the grading process.
 - ii. Approximate time frames for grading.
 - iii. Any necessary planning phase specific WQMP resulting from changes that impact the overall WQMP approved for the development. Each project-specific WQMP shall be reviewed and approved by the appropriate city.
- b. All cut and/or fill or individual combinations thereof shall meet the minimum requirements of the California Building Code or governing code at the time of application submittal.
- c. All grading activity shall conform to the recommendations of the preliminary soils report and subsequent reports prepared in conjunction with the grading plans.
- d. The applicant shall be responsible for the maintenance and upkeep of all planting and irrigation systems until those operations become the responsibility of other parties.
- e. When consistent with an approved grading plan, grading shall be permitted outside of the immediate area of development as follows: excess cut from a given project may be placed as engineered fill in a future development area or disposed of on consenting

offsite property. Since the projects represent separate maps, it may be necessary to obtain offsite grading permission letters and/or permits.

- g. Grading work on the entire site shall be balanced onsite whenever possible.
- h. The site is to comply with the National Pollution Discharge Elimination System (NPDES) "Best Management Practices" (BMPs) for erosion and sedimentation control.
- i. The site is to comply with the latest adopted WQMP guidelines for new developments as required by the latest MS4 Permit for the pertinent city.
- j. A Storm Water Pollution Prevention Plan (SWPPP) must be developed and implemented concurrent with commencement of grading activities. A copy must be provided to the Public Works Engineering Department prior to initiating grading.

3.6 PROJECT APPROVALS AND RESPONSIBLE AND TRUSTEE AGENCIES

It is anticipated that the Inland Valley Development Agency, functioning as the CEQA Lead Agency, will approve the final AGSP and CEQA document. It is anticipated the cities of Highland and San Bernardino (CEQA Responsible Agencies) will adopt the Specific Plan and any amendments to each City's General Plans and Development Code as appropriate and recognize the adopted CEQA document as certified by the IVDA. The San Bernardino County Flood Control (Department of Public Works) may consider and approve the design for the City Creek Bypass channel. To install the support infrastructure within the project area, site specific encroachment permits may be required by various agencies. Finally, in order to make modifications to the City Creek Bypass channel, it will be necessary to obtain regulatory permits for discharge of fill or streambed alteration. In this instance both the Santa Ana Regional Water Quality Control Board and the California Department of Fish and Wildlife would function as CEQA Responsible Agencies.

Other agencies that may have permitting authority over the project may include:

- State Water Resources Control Board
- South Coast Air Quality Management District
- U.S. Army Corps of Engineers
- East Valley Water District
- Caltrans District 8
- U.S. Fish and Wildlife Service
- San Bernardino County Transportation Agency

3.7 PROJECT OF STATEWIDE, REGIONAL OR AREA-WIDE SIGNIFICANCE

Per Section 15206 of the State CEQA Guidelines, if a project has the potential for causing significant effects on the environment extending beyond the city or county in which the project would be located it is considered a project of statewide, regional or area wide significance. CEQA provides examples of the significant effects that a project could cause such as generating significant amounts of traffic or interfering with the attainment or maintenance of state or national air quality standards. SCAG, as well as all of the responsible and trustee agencies listed above, are notified of the project through the CEQA process, and invited to participate in the CEQA process through the public review and comment period of this DPEIR.

Section 15206 explicitly identifies projects subject to this subdivision to include proposed industrial developments of more than 650,000 square feet. Because this project proposes a development that includes up to 9.2 million square feet of Mixed Use Business Park uses, IVDA has concluded that the project should be considered of statewide, regional or area wide significance. According to Section 15082(c)(1) of the State CEQA Guidelines, the lead agency is required to conduct at least one scoping meeting for projects that meet the criteria of a project of statewide, regional- or area-wide significance.

3.8 NOTICE OF PREPARATION AND SCOPING MEETING COMMENTS ON THE PROJECT DESCRIPTION AND CEQA COMPLIANCE

3.8.1 Project Description

This header is intended to provide a space for comments that apply to the project description.

NOP Comment Letter #5 PCEJ: The Comment Letter suggests that IVDA look into different land use scenarios, including an option that does not allow for future distribution or warehousing facilities in the area. Another suggestion is that carbon capture projects should be considered under the AGSP.

Response: IVDA and the Cities of Highland and San Bernardino are considering a Specific Plan that would enable uses that would fall under a Mixed-Use Business Park land use as defined in the Specific Plan. This land use would enable a mix of commercial, industrial distribution, industrial, and tech business park. While the Project Description provides assumptions for the square footage of each of these use types, the ultimate mix of what will be developed would be based on the market demand for particular uses. The IVDA understands the commenter's suggestion to disallow distribution or warehousing, but this is not the project that is being proposed. The project purpose is (1) to align local and regional development objectives and implementation efforts for future land use, mobility, and economic development efforts in the multi-jurisdictional plan area, (2) to create a transition area between the Airport and residential land uses to the north of 6th Street, and (3) to provide comprehensive Infrastructure improvements for water, sewer and stormwater that resolve longstanding flooding and hydrology issues, amongst other objectives. IVDA and the Cities of Highland and San Bernardino have selected this mix of land use because (a) much of the area within the City of Highland is already designated for such uses, and (b) these types of uses would be consistent with buffering residential uses away from the adjacent airport, which would ultimately work towards protecting residents of both Cities from the impacts—noise, air quality, traffic, etc.—that occur as a result of being located next to such a use. These impacts are further analyzed throughout their respective subchapters.

The suggestion that carbon capture projects should be considered is noted. This type of use is considered an industrial activity that would fall under the Mixed-Use Business Park land use designation as a potentially allowable use. As such, there would be opportunity for such a development to be proposed and considered should there be a market for such a development.

Scoping Meeting Speaker #6 Mauricio: The speaker asks are there any businesses in mind that would occupy the AGSP specific plan area?

Response: At this time, the mix of uses proposed under Table 3-3 in Chapter 3, the Project Description, is an estimate only, as no specific proposals have been put forth under the AGSP at

this time. However, the existing projects in process maps and project list are provided as Figures 6.2-1 through 6.2-3.

Scoping Meeting Speaker #7 Yassi: The speaker suggests flexibility to disallow medium and heavy-duty industrial development, as they are concerned about those uses. The speaker suggests that impacts from those uses already exist and are hefty.

The IVDA and cities of Highland and San Bernardino have identified the uses that are allowed under the Specific Plan in Table 4.2, Permitted Uses, provided in the Specific Plan itself. The following uses that could be identified as Medium Duty Industrial or Heavy-Duty Industrial include:

- *Manufacturing or fabrication of products from parts already in processed form that do not create smoke, gas, odor, dust, sound, or other objectionable influences to surrounding uses.*
- *Manufacturing or fabrication of products from unprocessed materials. Uses include, but are not limited to metal and plastic processing, pharmaceuticals, cosmetics, and similar.*
- *Outdoor Storage; notes include: Includes equipment, vehicles, trailers, and non-hazardous materials; Shipping container storage (beyond 30 days) shall require the approval of a Conditional Use Permit; and, Subject to applicable screening requirements*
- *Warehousing, including distribution and logistics facilities loading/ unloading and storage areas.*

It is anticipated that Medium and Heavy-Duty Industrial uses would be limited in scope, size, and number within the AGSP Planning Area due to the size of lots that would be possible under the AGSP due to the short distance between 3rd Street and 5th Street, and 5th Street and 6th Street, and west of Sterling Avenue, due to the City Creek Bypass bisecting the area between 3rd Street and 5th Street. Thus, while the commenter has suggested limiting these uses, it is anticipated that the size, scope, and number of such uses within the AGSP Planning Area would be limited as a result of the configuration of the planning area. Given that each of the future projects proposed under the AGSP would be required to obtain entitlements from the City within which the individual project is proposed, it is anticipated that this process will ensure that projects with greater impacts as a result of medium or heavy-duty industrial operations would disclose such impacts and mitigate them to the greatest extent feasible as required by the City within which the individual project is proposed. Furthermore, each future project proposed under the AGSP would be subject to the stringent mitigation provided herein.

3.8.2 CEQA Compliance

This header is intended to provide a space for comments that apply to community engagement and the applicability of community engagement as a requirement of the CEQA process. Additionally, this header is intended to provide a space for responses to comments that question the next steps under CEQA for projects proposed under the AGSP.

NOP Comment Letter #5 PCEJ: The Comment Letter raises concerns regarding reaching out and engaging stakeholders on the proposed AGSP and recommends community outreach directly with communities and business owners that live inside the proposed AGSP and that live adjacent to it. The Comment Letter also provides suggestions for the types of outreach that IVDA should consider. The Comment Letter suggests that IVDA should hold multiple workshops to break down the project and environmental analysis to members of the community. The Comment Letter suggests Spanish notification and informational materials on the project.

Response: CEQA Statute 15082 pertains to the Notice of Preparation and Determination of Scope of the EIR. The Notice of Preparation is required to be sent to the Office of Planning and Research and each responsible and trustee agency, and must be filed with the county clerk of each county in which the project will be located. This notice shall also be sent to every federal agency involved in approving or funding the project. CEQA requires that the Notice of Preparation period for an EIR be 30 days in which comments from the public and from federal, state, responsible and trustee agencies. The Scoping Meeting is not necessarily a requirement of CEQA, but for projects of statewide, regional or areawide significance pursuant to Section 15206, the lead agency shall conduct at least one scoping meeting. Notices must be provided to any county or city that borders on a county or city within which the project is located, unless otherwise designated annually by agreement between the lead agency and the county or city; any responsible agency; any public agency that has jurisdiction by law with respect to the project; and, any organization or individual who has filed a written request for the notice.

Under the AGSP, the Notice of Preparation was prepared and submitted to the required agencies on June 17, 2022 (refer to Subchapter 8.1 to this DPEIR, which contains a copy of the Distribution List and Notice of Preparation for the Project). The NOP posting at the San Bernardino County Clerk of the Board can also be found in Subchapter 8.1 to this DPEIR, and the documentation of filing with the Office of Planning and Research can be found under SCH# 2022060349 specifically at the following web address: <https://ceqanet.opr.ca.gov/2022060349>). The NOP and Notice of EIR Scoping was placed in the San Bernardino Sun Newspaper on June 17, 2022, acting as the public notification of the Scoping Meeting.

CEQA Statute 15083 recommends early public consultation, but does not require it. Based on the above, the CEQA process for the AGSP has occurred within the bounds of the Statute. IVDA held private, informal information meetings with members of the community who showed up at the Scoping Meeting in advance of the Scoping Meeting. Here is how the IVDA intends to proceed and/or has gone above and beyond the CEQA requirements in preparation of the DEIR for the AGSP:

The IVDA will send out a notice, which will include information in Spanish, to property owners and tenants within the AGSP Planning Area. These will be mailed to a quarter-mile radius beyond the AGSP Area boundaries. Notice information will include the circulation of the DPEIR, how the public can provide public comment on the DPEIR, and information about an open house style meeting at which project staff and technical experts will be available to answer questions that members of the public may have on the AGSP. There will also be a bilingual (Spanish) certified court reporter available to members of the public who can document questions to be included in the DPEIR. A professional Spanish interpreter will also be available to assist attendees. Social media content about the meeting and how to provide public comment will also be developed that can be shared on digital platforms by the cities of San Bernardino and Highland as well as organizations and community leaders who serve residents and businesses in the area.

The IVDA will hold an open house style public meeting for AGSP as part of the DPEIR process. This will occur during the public review and comment period for the DPEIR. The scoping meeting held on July 7, 2022 was the first meeting with the public in which comments were provided for response in the DPEIR. IVDA is looking at other opportunities in which it can provide updates about the project with organizations who represent area residents and businesses.

The IVDA is working on additional communications tools and opportunities to help inform the public about the purpose of the Airport Gateway Specific Plan and how the public can be involved in the environmental process. This includes the development of bilingual project materials

(Spanish) and notification of upcoming AGSP-related meetings. Additionally, a landing page on the IVDA website for AGSP will be established for ease of finding information about the project. It will include project informational materials, environmental documents associated with the project, project contact information, and information on how the public can provide formal comments to the DPEIR. A project database is being developed to send direct mail pieces and electronic communications to area residents, property owners and other people who express interest in receiving project information.

A professional interpreter will be available at future meetings for AGSP.

NOP Comment Letter #8 San Bernardino County Department of Public Works: The County requests to be included on the circulation list for all project notices, public reviews, and public hearings.

Response: The IVDA, City of Highland, and City of San Bernardino will include the San Bernardino County Department of Public Works on future AGSP circulation lists.

Scoping Meeting Speaker #1 Andrea: The speaker suggests workshops should be held throughout the PEIR IVDA process with the community. They asked that the Project Team communicate how many. The speaker suggests that Spanish notices should be included as well as English ones. They asked what the radius of the notification would be.

Response: Please refer to the response under NOP Comment Letter #5 PCEJ, above, which provides a complete response to the concerns raised in this comment.

Scoping Meeting Speaker #3 Lori: The speaker communicates that the Specific Plan is long, and asks for verification that, as the AGSP goes through the process, it would also go through each of the City's planning commissions, specifically asking if each project will go through the Cities as specific development projects.

Response: The Environmental Processes that will be followed are as follows.

First, IVDA would publish the AGSP DPEIR for a 45-day circulation period in which the public can comment and provide input on the environmental analysis contained herein.

Second, IVDA would prepare a Final EIR, which would contain a mitigation monitoring and reporting program (MMRP) and responses to comments received during the public review period, in addition to any edits to the Draft EIR that result from comments received during the public review period. IVDA would also prepare a Facts, Findings, and Statement of Overriding Considerations for the IVDA Board Package on the AGSP that would detail the facts and findings herein, in addition to overriding considerations for the IVDA Board to consider as there are significant unavoidable adverse impacts that would result from AGSP implementation. The Final EIR and Facts, Findings, and Statement of Overriding Considerations would be part of the Board Package for consideration of certification by the Board at a public Board Hearing.

If the IVDA certifies the Final EIR and Facts, Findings, and Statement of Overriding Considerations, the initial CEQA process would be complete. However, there would be several follow-on actions under CEQA required.

The Third Action would be that each City (San Bernardino and Highland) would need to adopt the Specific Plan as a General Plan Amendment at a future Public Hearing. Each City may consider

modifications to the language in the Specific Plan at this time. As Responsible Agencies under CEQA, the certified Final EIR would be utilized to process the General Plan Amendments by each City individually.

The Final actions would be that each project proposed under the AGSP would require a separate discretionary action by the City under which a given project is proposed. While this discretionary action may simply be a building permit, each project would be required to go through the formal planning process with the City, ultimately with project-specific permits and/or entitlements possibly granted by City Decisionmakers. Each of the above processes would include and enable public participation.

Scoping Meeting Speaker #4 David (Teamsters): The speaker is a Business Agent for the teamsters. The speaker communicates that a majority of residents for Eastgate had no idea what was going to be taking place as a result of that project. The speaker re-emphasizes that communication of the Project with residents is important, as they believe that more people would show up with their concerns.

Response: Please refer to the response under NOP Comment Letter #5 PCEJ, above, which provides a complete response to the concerns raised in this comment.

Scoping Meeting Speaker #5 Henry Salazar: In regards to the responses to scoping meeting comments provided in the document, the speaker asks who is going to be answering these questions? Who is it that is giving the okay to put certain things in the document? Who has the final say over what goes in the document? Is there a process that has to be followed in order to meet CEQA? What is that process? The speaker suggests that no one has taken the initiative to meet with the community, suggests that Fox News and CNN ads should be placed.

Response: As stated by the Project Team at the Scoping Meeting, the environmental consulting team, with the oversight of IVDA, the City of Highland, and the City of San Bernardino review and approve the comments prepared, ultimately responds to all questions and comments provided on the EIR. This DPEIR has been reviewed and edited closely by IVDA, City of Highland, and City of San Bernardino Staff. Thus, IVDA, the City of Highland, and the City of San Bernardino have collectively agreed and have final say upon the contents found herein. The IVDA does not have land use authority, but the IVDA does have Lead Agency authority under CEQA due to the AGSP being within its jurisdiction. The IVDA can recommend the approval of the Specific Plan analyzed herein to both cities, and the cities would ultimately each independently approve and adopt a General Plan Amendment to enable the implementation of the proposed AGSP.

Please refer to the response under Scoping Meeting Speaker #3 Lori, above, which provides a response to what steps would need to be taken to meet CEQA requirements, which has been raised in this comment. Additionally, please refer to the response under NOP Comment Letter #5 PCEJ, above, which discusses community outreach and how this project has and will continue to communicate with residents and businesses within and adjacent to the AGSP Planning Area

Scoping Meeting Speaker #6 Mauricio: Are there plans to inform the residents or plans for the displaced residents?

Response: Please refer to the response under NOP Comment Letter #5 PCEJ, above, which addresses the action plan for community outreach to residents and businesses within the AGSP Planning Area. The comment on plans for the displaced residents is responded to under "Population and Housing," in Subchapter 4.15.

Scoping Meeting Speaker #7 Yassi, Sierra Club: The speaker suggests that Negative Declarations are barred from use in future tiering efforts, including from parcel consolidation.

Response: It is unclear whether this speaker is specifically referencing Negative Declarations or is referring to Negative and Mitigated Negative Declarations. Regardless, it is first important to note that all projects proposed under the AGSP will be required to meet the stringent mitigation requirements provided herein, where applicable, regardless of future tiering efforts. It is possible that a future proposal for a small commercial use, for instance, might require tiering, but may not require additional mitigation in order to meet CEQA requirements. In this case, the mitigation provided herein would still apply to the proposed project, but a Negative Declaration could be utilized. CEQA, as a statute, has stringent and specific requirements for tiering and applicability for future projects utilizing tiering (refer to CEQA Statute 15152, Tiering), so, while the IVDA and Cities understand that the speaker does not attribute positive connotations to Negative Declarations, future tiering off of the AGSP EIR would be required to comply with CEQA Statute 15152 and 15162, meeting the applicable requirements for the varied means by which projects can adhere to such requirements, i.e. Categorical Exemptions, Addenda, Negative Declarations, Mitigated Negative Declarations, and Environmental Impact Reports. Thus, the IVDA does not believe it would be appropriate to limit the means by which future CEQA tiering efforts under the AGSP could comply with CEQA, as the protections provided through simply complying with CEQA would, in most cases, involve public hearings in which public comments and participation may be made, and mitigations provided in this DPEIR must be adhered to, where applicable, for all future projects under the AGSP.

Scoping Meeting Speaker #7 Yassi, Sierra Club: The speaker suggests monthly updates to the community on the project and that IVDA could be the owner of the updates. The speaker recommends Sign-up Sheet Follow up. The speaker suggests that Presentations and Project Descriptions should be available in Spanish, as well as notices as.

*Response: Please refer to the response under NOP Comment Letter #5 PCEJ, above, which provides a response to the concerns raised in this comment. Sign-up sheet follow up has been considered, and **is planned to be** implemented as part of the outreach efforts for this project beginning with notification of the public circulation of the Draft EIR. Updates to the Sierra Club representative and the Peoples Collective for Environmental Justice representative have been provided periodically leading up to the publication of the DPEIR.*

Scoping Meeting Speaker #8 Sheena: The speaker didn't know about this meeting, and believes that better communication should be available to residents. The speaker suggests that notifications should be put on the news, on Facebook, etc. for people who can't read, and asks how many people get the Sun newspaper delivered to their house?

Response: Please refer to the response under NOP Comment Letter #5 PCEJ, above, which provides a response to the concerns raised in this comment. The IVDA has opted to communicate directly with residents and businesses via mailers and filing of required notices. While many people watch the news and utilize Facebook, this type of notification is not required by CEQA, and furthermore is not recognized as a type of notification method that would comply with CEQA. As CEQA is the law under which this document has been prepared, these methods of communication have not been selected for use under the proposed project. Publication in a local newspaper, it should be noted here, is a recognized method by which Lead Agencies can comply with the CEQA notification requirements. Furthermore, the Sun Newspaper, while still a print publication, is also available online at <https://www.sbsun.com/>.

Scoping Meeting Speaker #9 Sean Martinez: The speaker provided suggestions for reaching out to the community during the Eastgate project. The speaker suggests that a way to reach out to the community would be to knock on doors for residences that would be displaced by this plan as this would let them know what the project would mean for them. For most people EIRs are not accessible because of their technical content being at too high of a level.

Response: Please refer to the response under NOP Comment Letter #5 PCEJ, above, which provides a response to the concerns raised in this comment.

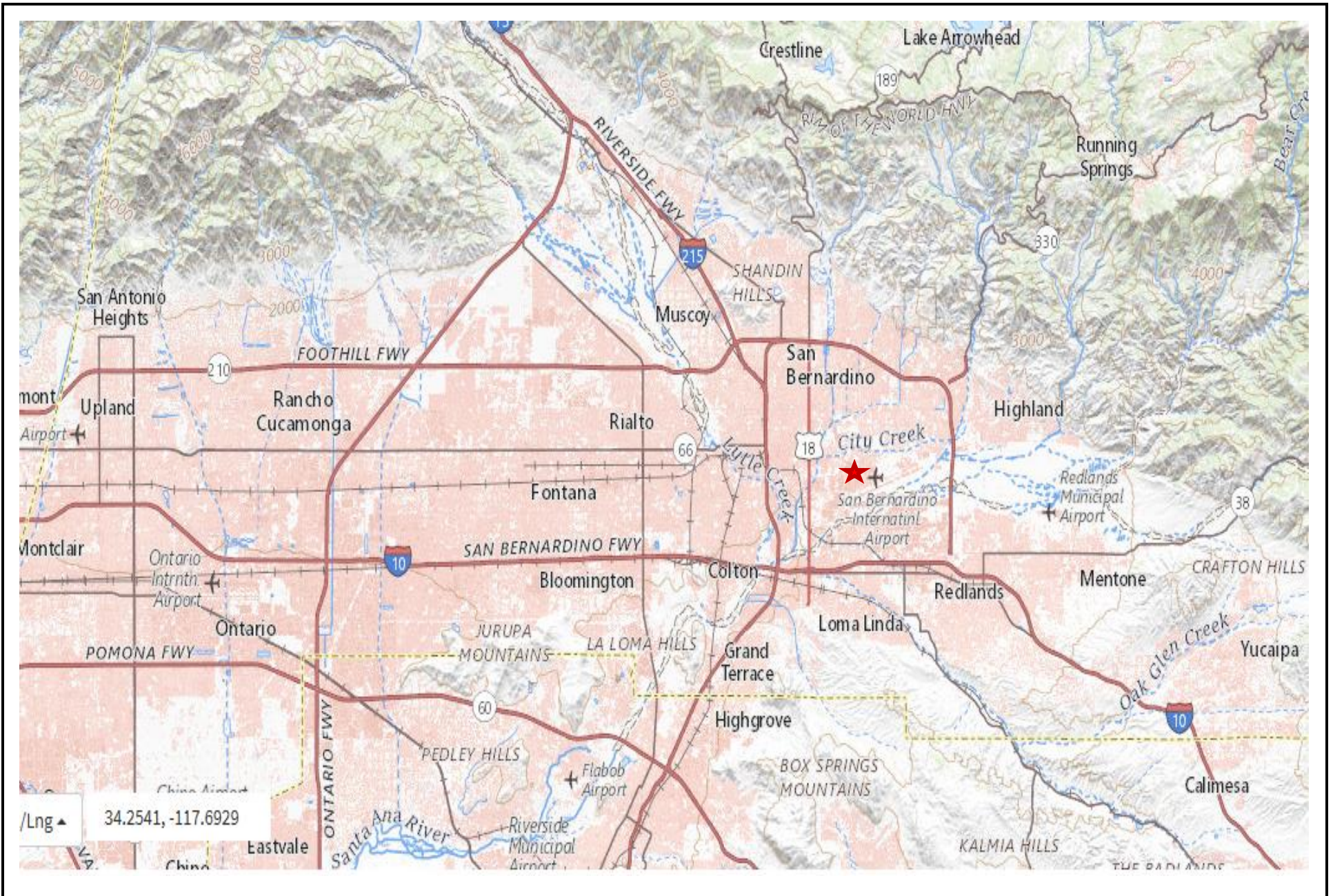
Scoping Meeting Speaker #10 Jo: The speaker is looking for community involvement. The speaker concurs with what everyone else has said at the scoping meeting. If this project doesn't actually take place for 10-15 years, is there a follow-on process?

Response: Please refer to the response under NOP Comment Letter #5 PCEJ, above, which provides a response to the concerns regarding community involvement raised in this comment. Additionally, please refer to the response under Scoping Meeting Speaker #3 Lori, above, which provides a response to the concerns regarding the follow-on CEQA process. Effectively, under CEQA an evaluation of whether a future site-specific project fits within the same or nearly the same circumstances as those which were identified under the original CEQA documentation (in this case the AGSP DPEIR, and ultimately, the Final EIR), and if circumstances have changed, those changes in circumstances must be identified and evaluated against the specific compliance methods authorized under CEQA to determine the appropriate path forward. This process is called tiering, and is outlined under CEQA Statute 15152. Tiering refers to using the analysis of general matters contained in a broader EIR (such as one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project. Should development under the AGSP be deferred for 10-15 years, each specific development (regardless of the time elapsed) would be required to adhere to the tiering guidelines, which would determine whether the project is covered under the original EIR, requires follow on analysis in the form of an Addendum, Negative Declaration, Mitigated Negative Declaration, or where new significant impacts are identified, an Environmental Impact Report.

Scoping Meeting Speaker #11 Marta: The speaker lives in the City of Highland 1.5 miles away; they suggest that newspapers are not too hip, and that people don't read them anymore. Instead, people are on Facebook and social media. The speaker suggests that IVDA send out the notices as flyers with dates of the hearing and of the workshops. The speaker suggests that the Project Team get involved and email her and the community, and that her team is happy to get involved.

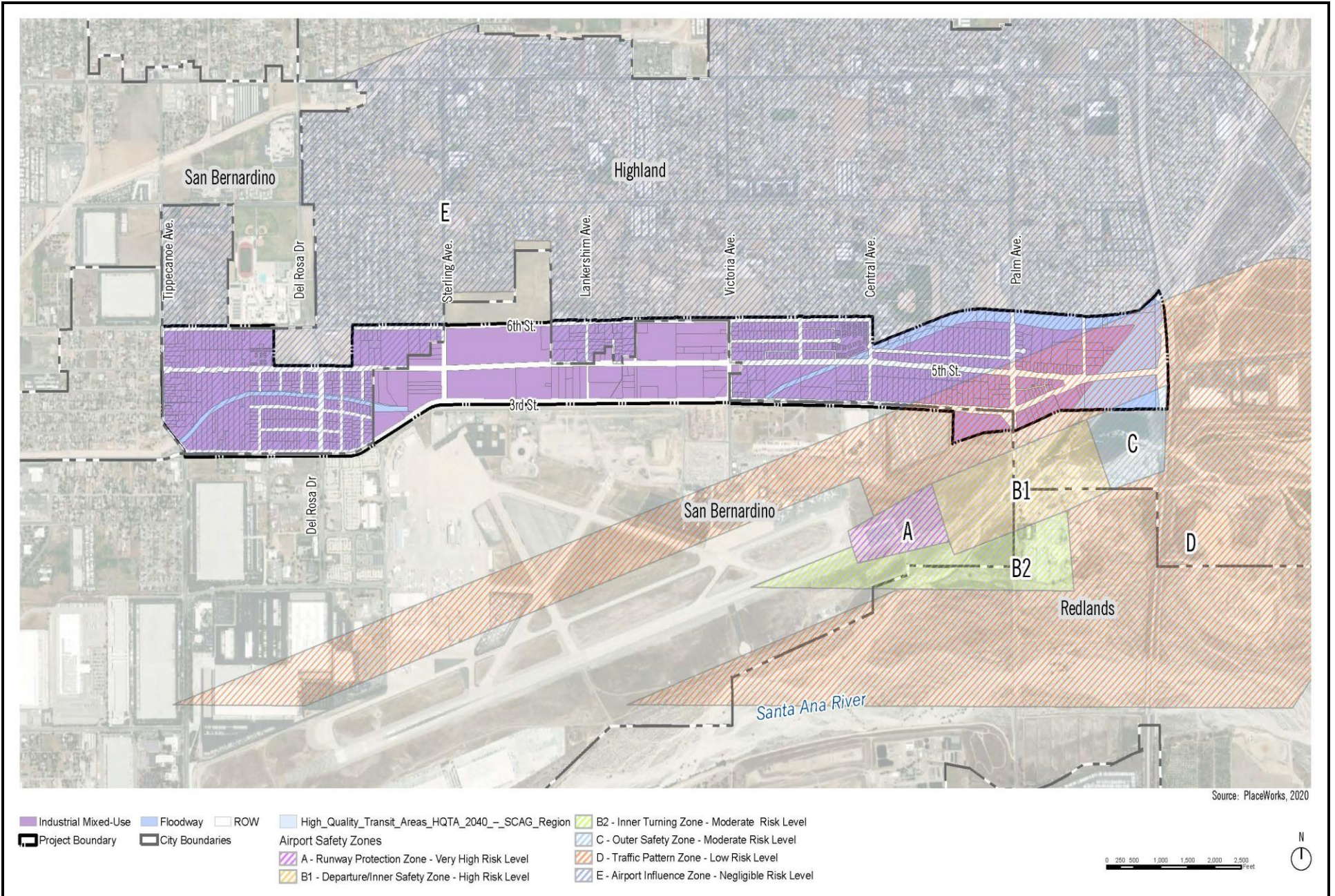
The speaker indicates that she believes that the Community is not involved in CEQA and doesn't understand the environmental process. Community organizers are aware of CEQA, but people going about their daily lives aren't aware. The speaker suggests that the Project Team should notify the community, and should ask them to provide email addresses to keep updated on the progress of the AGSP.

Response: Please refer to the response under NOP Comment Letter #5 PCEJ, above, which provides a response to the concerns raised in this comment. Please also refer to the response under NOP Comment Letter #8, which indicates that the IVDA has opted to communicate directly with residents and businesses via mailers. Please also refer to the response under Scoping Meeting Speaker #7 Yassi, Sierra Club, which outlines the sign-up sheet follow up that has or is planned to occurred in the period of time since the Scoping Meeting.



SOURCE:

FIGURE 3-1



SOURCE: PLACEWORKS dated 7/1/20

FIGURE 3-2

Aerial Photograph of Project Site

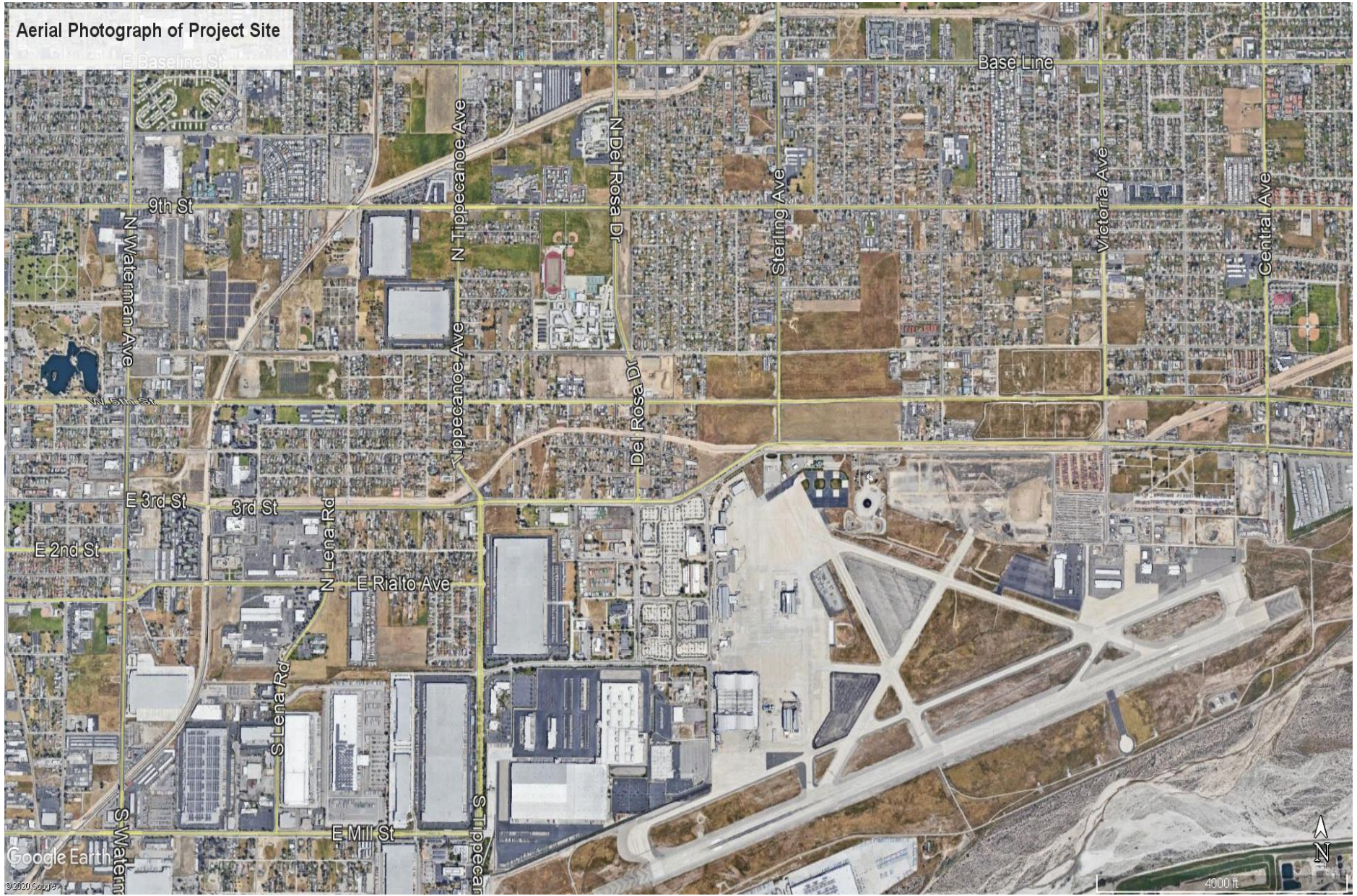
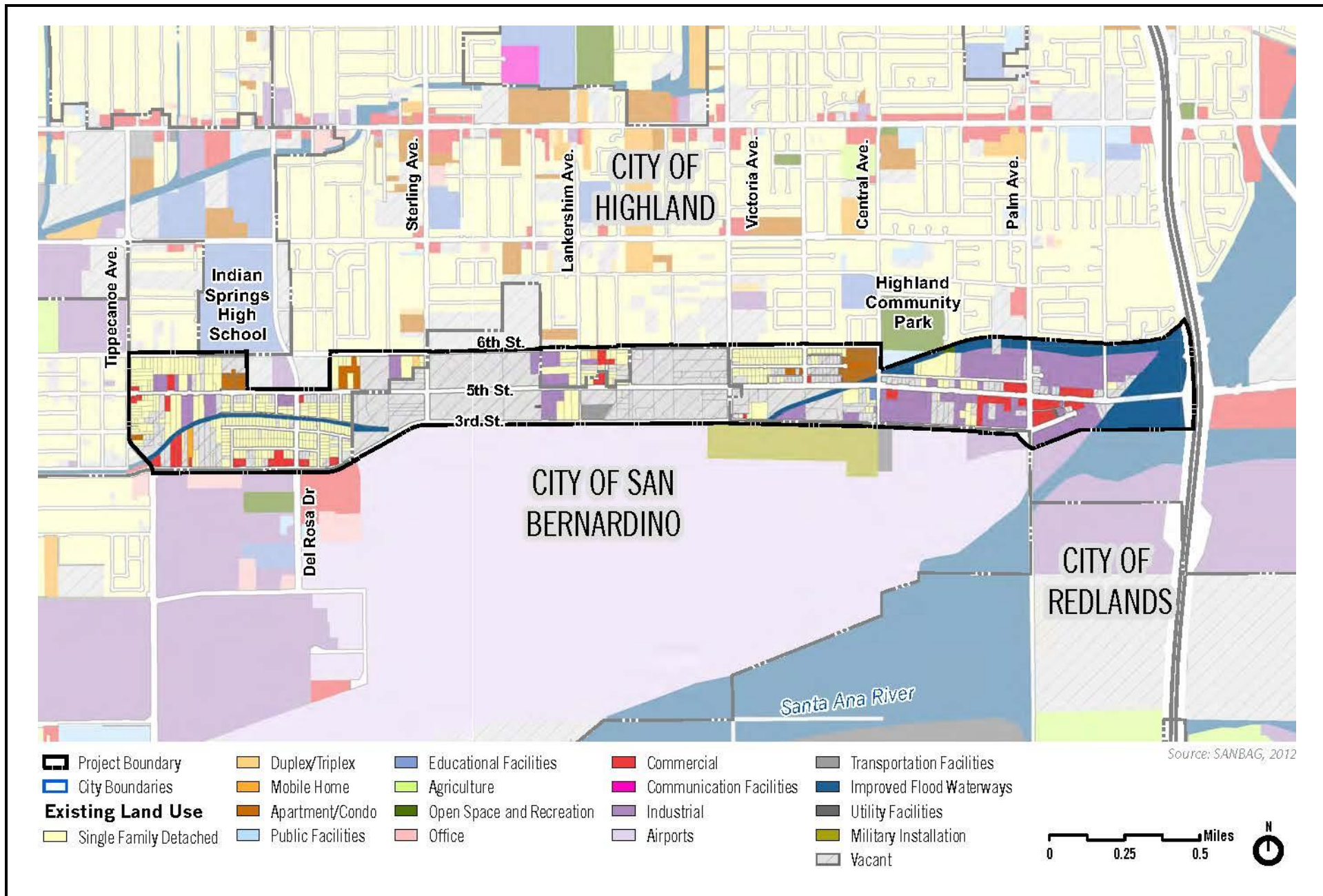


FIGURE 3-3

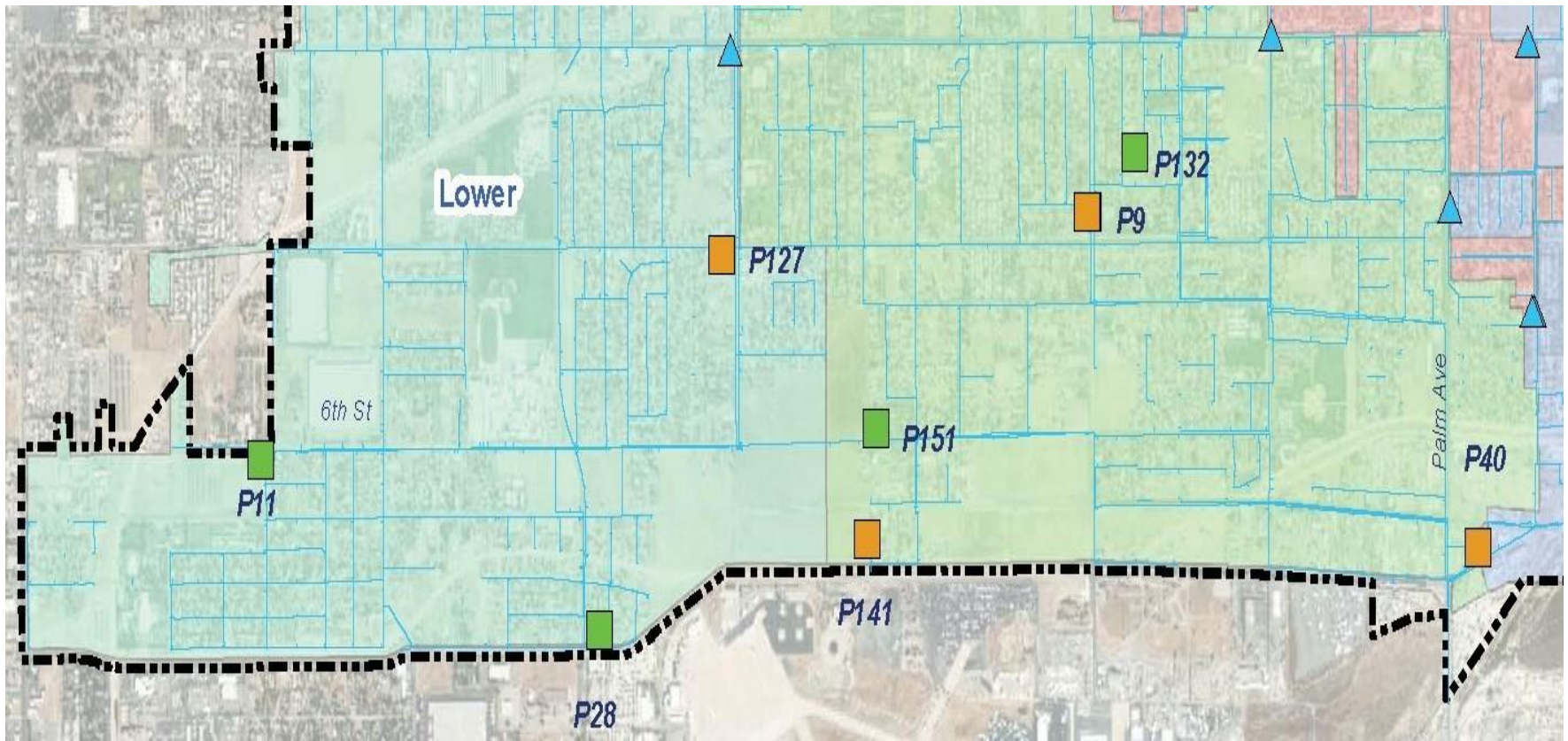


SOURCE: Airport Gateway Specific Plan – working draft

FIGURE 3-4

Tom Dodson & Associates
Environmental Consultants

**Existing Land Uses Within the AGSP Planning Area
and Surrounding Areas in the Two Cities**

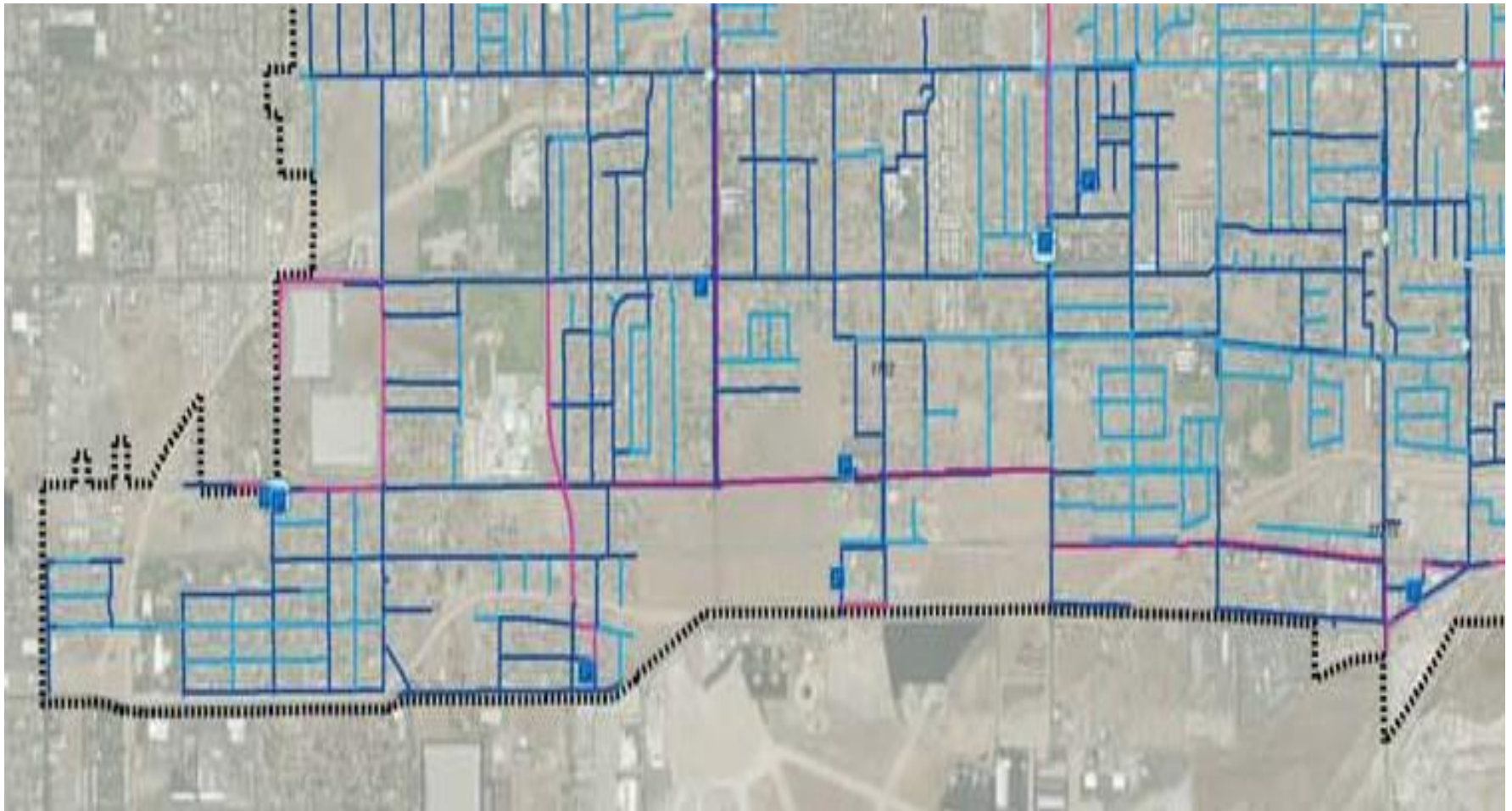


Legend

- | | | |
|------------------|-------------------|---------------------------|
| Capital Projects | ▲ PRV Station | — Model Pipe |
| ■ New Pipe | ■ Booster Station | --- Service Area Boundary |
| ■ Pipe Upsize | ◆ Reservoir | — freeway |
| ■ Well | ■ WTP | |

SOURCE: AGSP

FIGURE 3-5

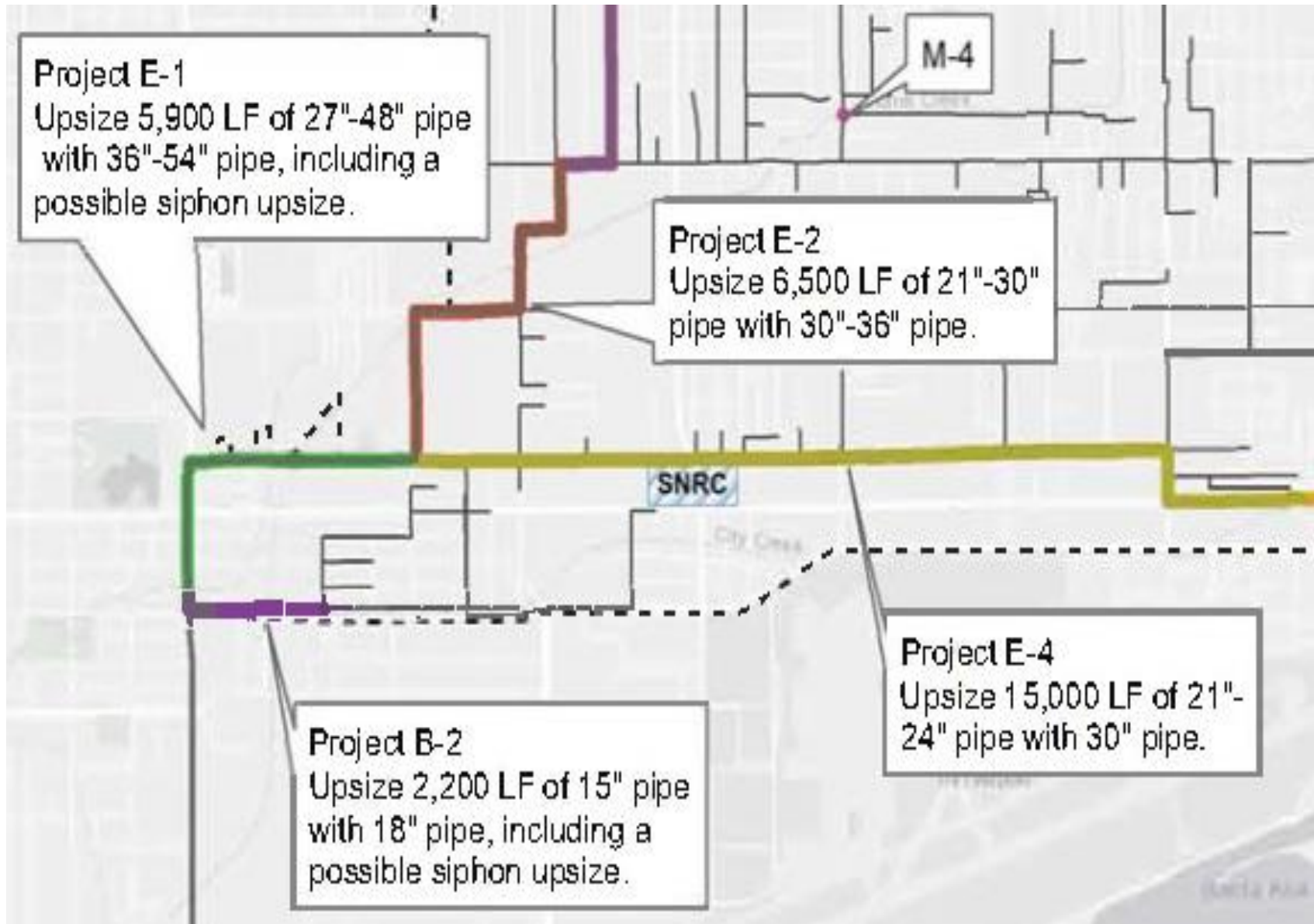


Legend

- | | | | |
|---|---|--|--|
|  Pressure Reducing Station |  Tank | Pipeline by Diameter (inches) |  8 - 13 inches |
|  WTP 134 |  Service Area Boundary |  < 4 inches |  14 - 24 inches |
|  Plant | |  4 - 7 inches |  > 24 inches |

SOURCE: AGSP

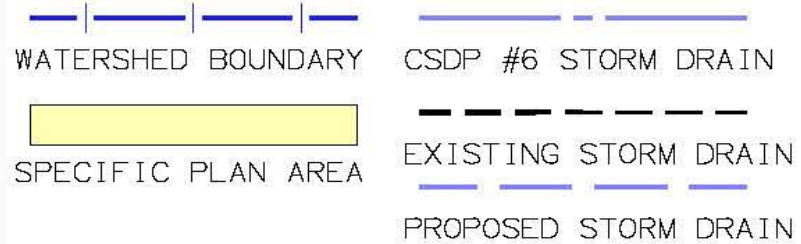
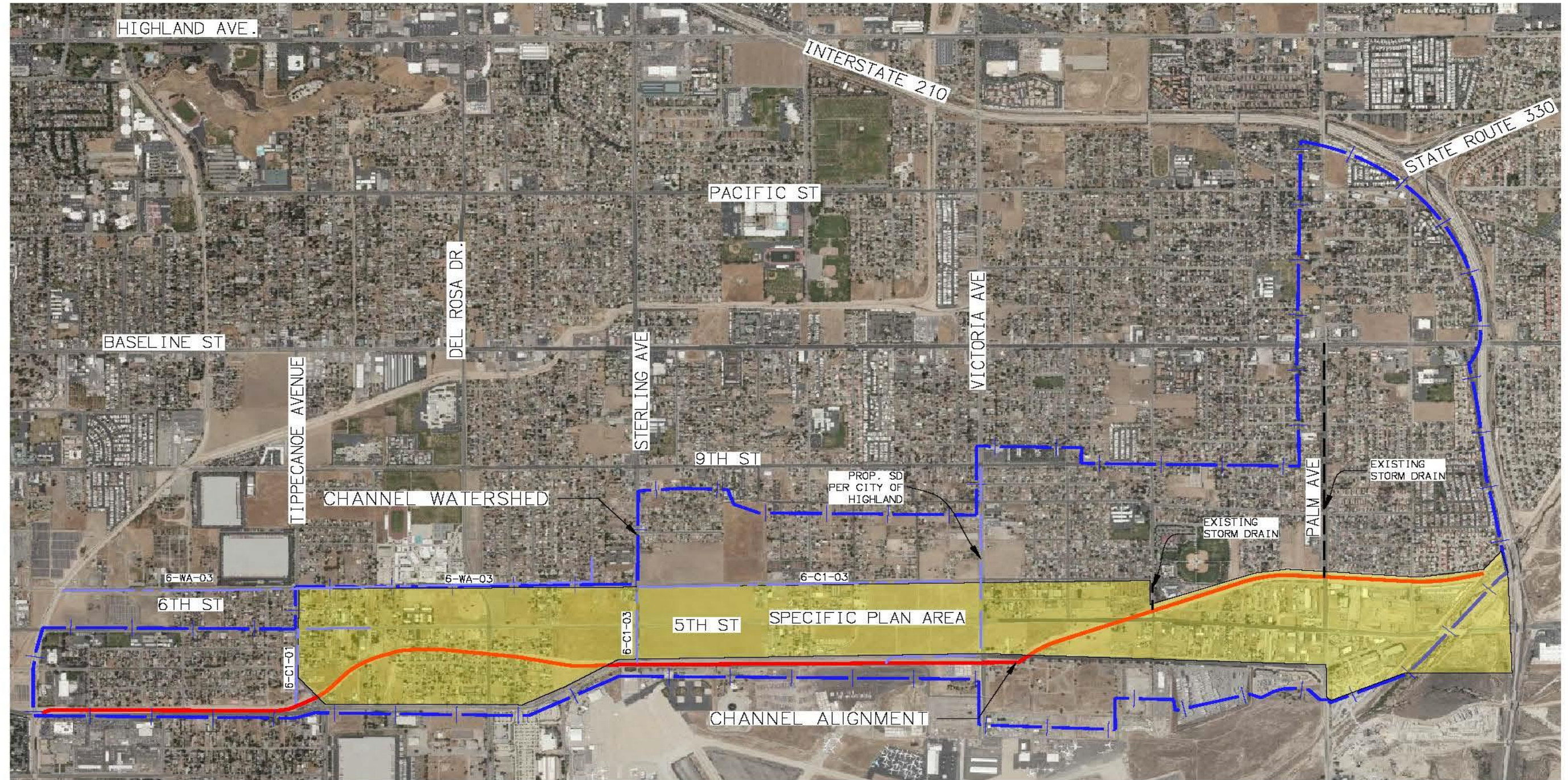
FIGURE 3-6



SOURCE: AGSP

FIGURE 3-7

Drawing Name: O:\254.01.17\Engineering\Hydrology_Plan\Exhibits\Figures\Figure 2 - Watershed & Channel Alignment.dwg
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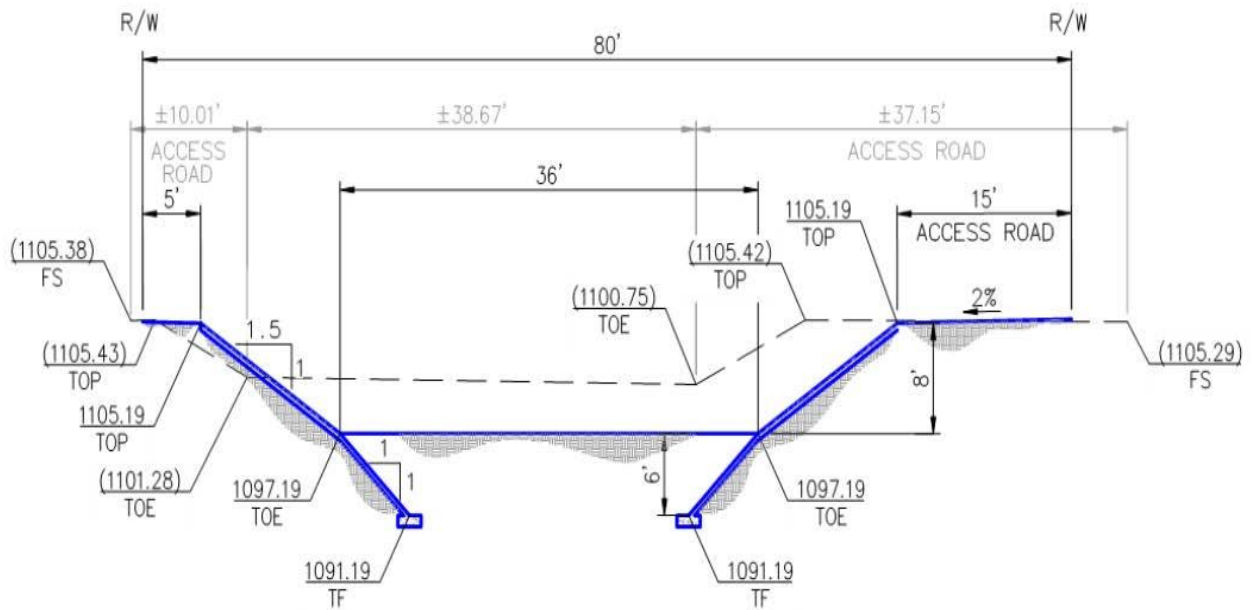
IVDA 3RD AND 6TH STREET SPECIFIC PLAN CHANNEL ALIGNMENT AND WATERSHED



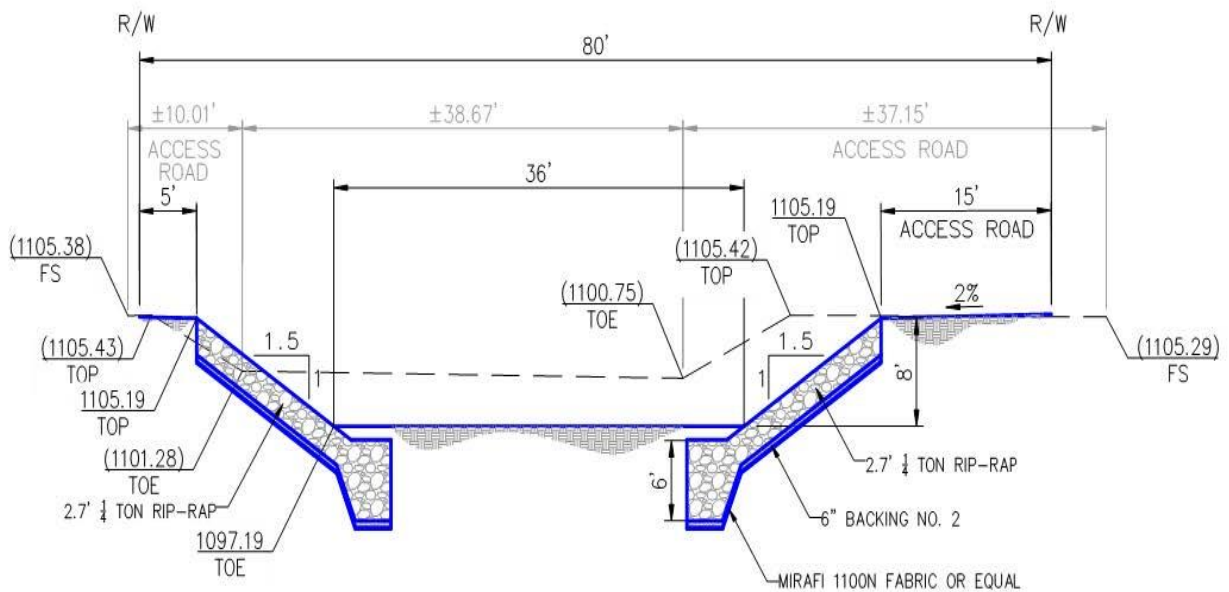

 41660 IVY STREET, SUITE A
 MURRIETA, CA 92562
 PH. 951.304.9552 FAX 951.304.3568
FIGURE 2

SOURCE: JLC Engineering, Preliminary Hydrology and Channel Design, August 2020

FIGURE 3-8



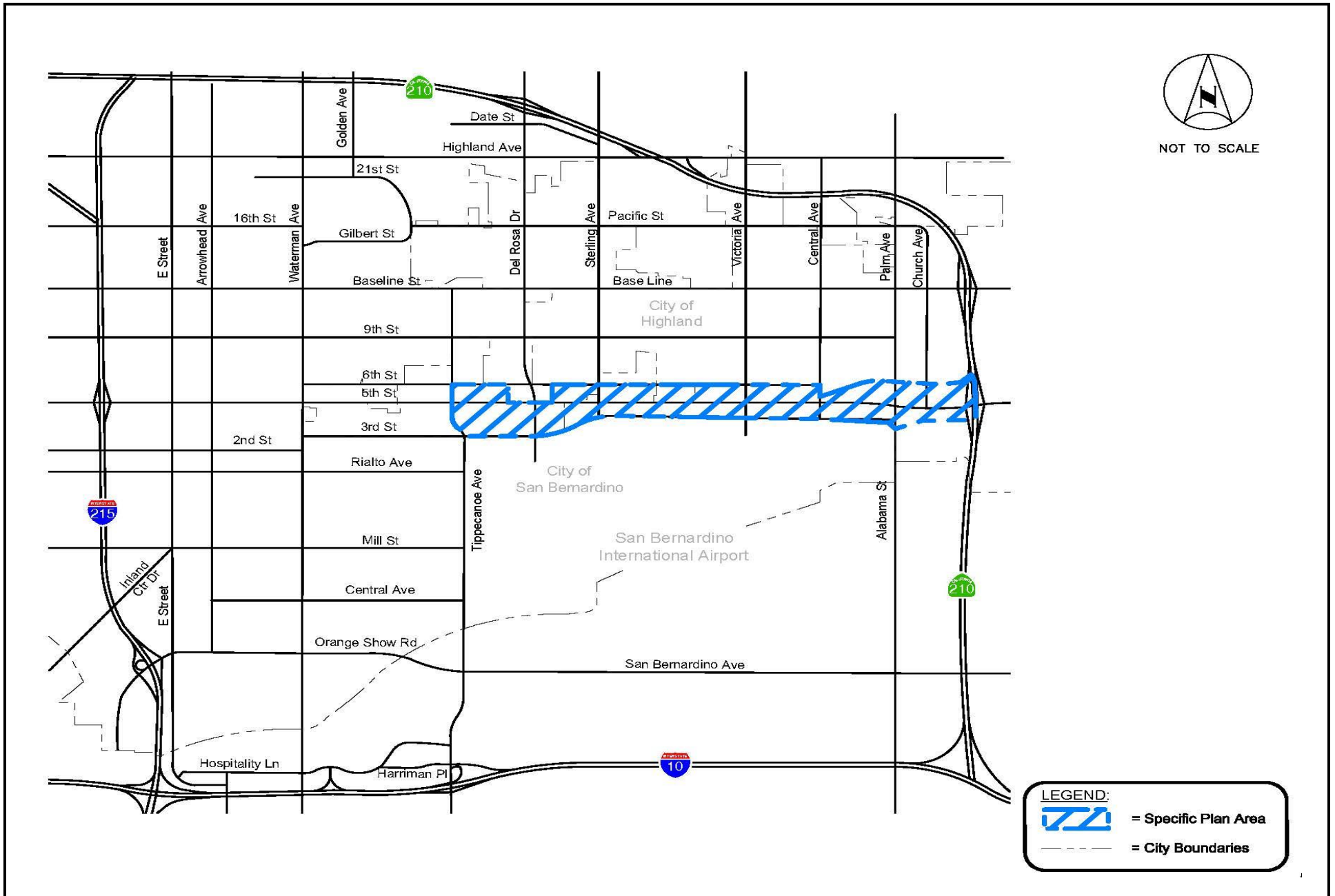
Section A-A: Concreted Lined Side Slopes and Earthen Bottom



Section B-B: Rip-Rap Lined Side Slopes and Earthen Bottom

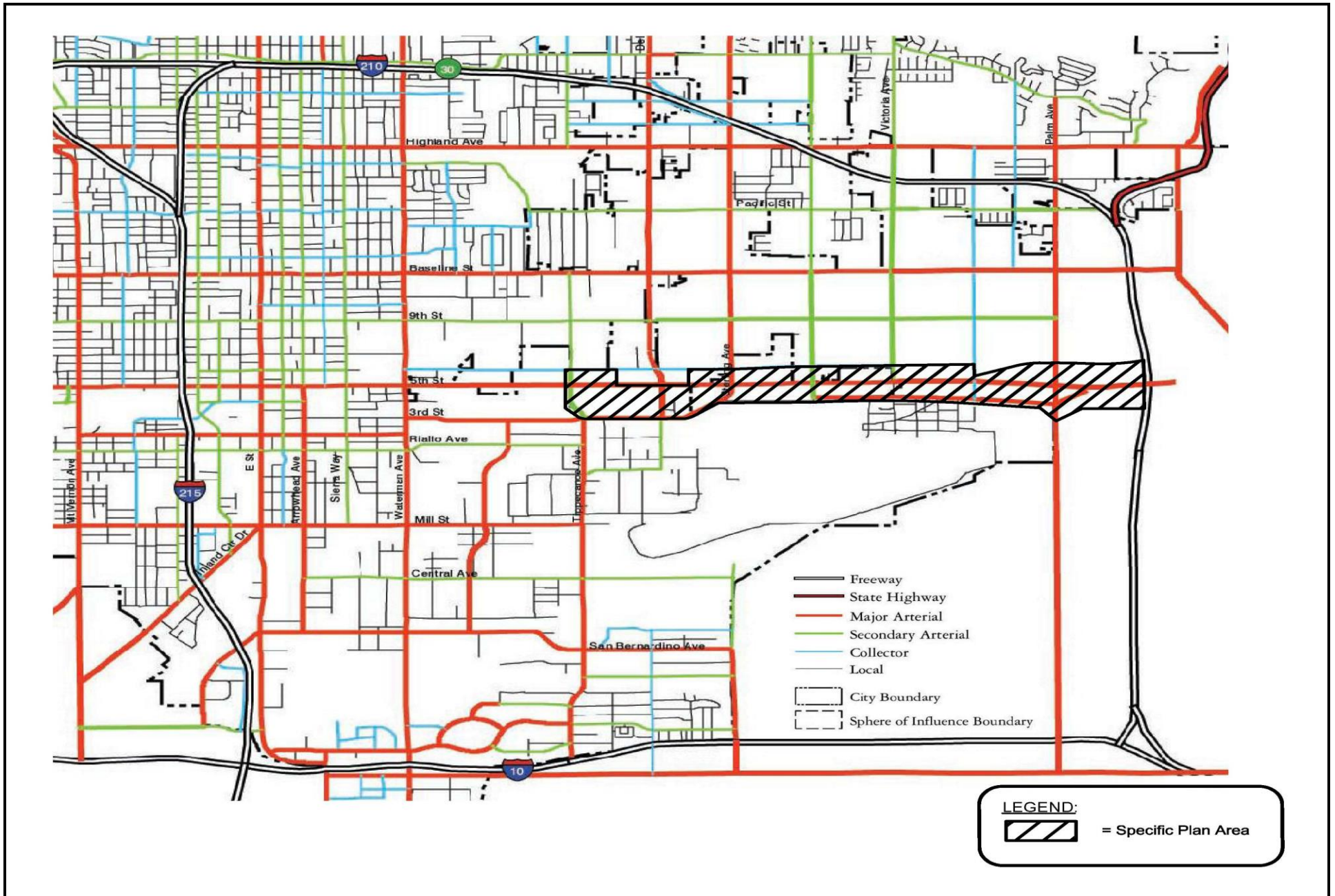
SOURCE: JLC Engineering, Preliminary Hydrology and Channel Design, April 220

FIGURE 3-9



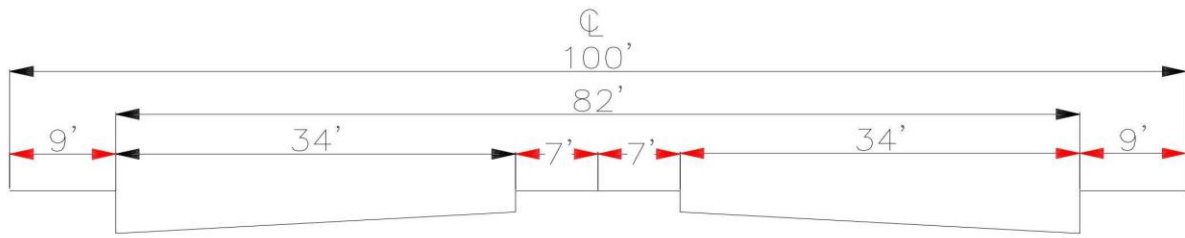
SOURCE: Kimley Horn, Traffic Impact Study, April 2020

FIGURE 3-10

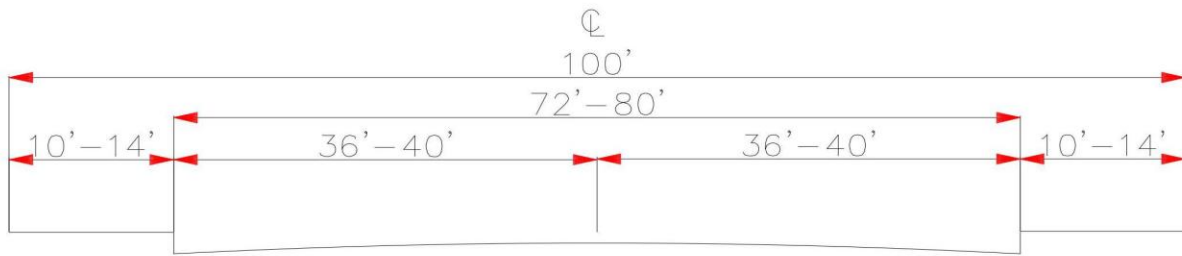


SOURCE: Kimley Horn, Traffic Impact Study, April 2020

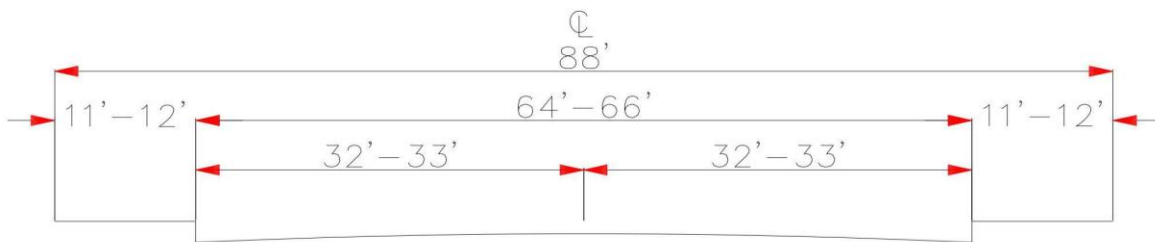
FIGURE 3-11a



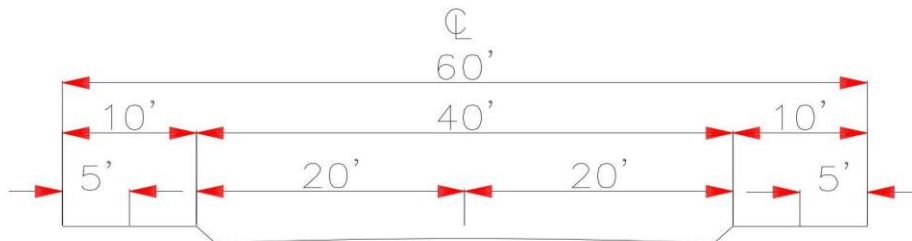
MAJOR DIVIDED HIGHWAYS



MAJOR HIGHWAY



SECONDARY HIGHWAY

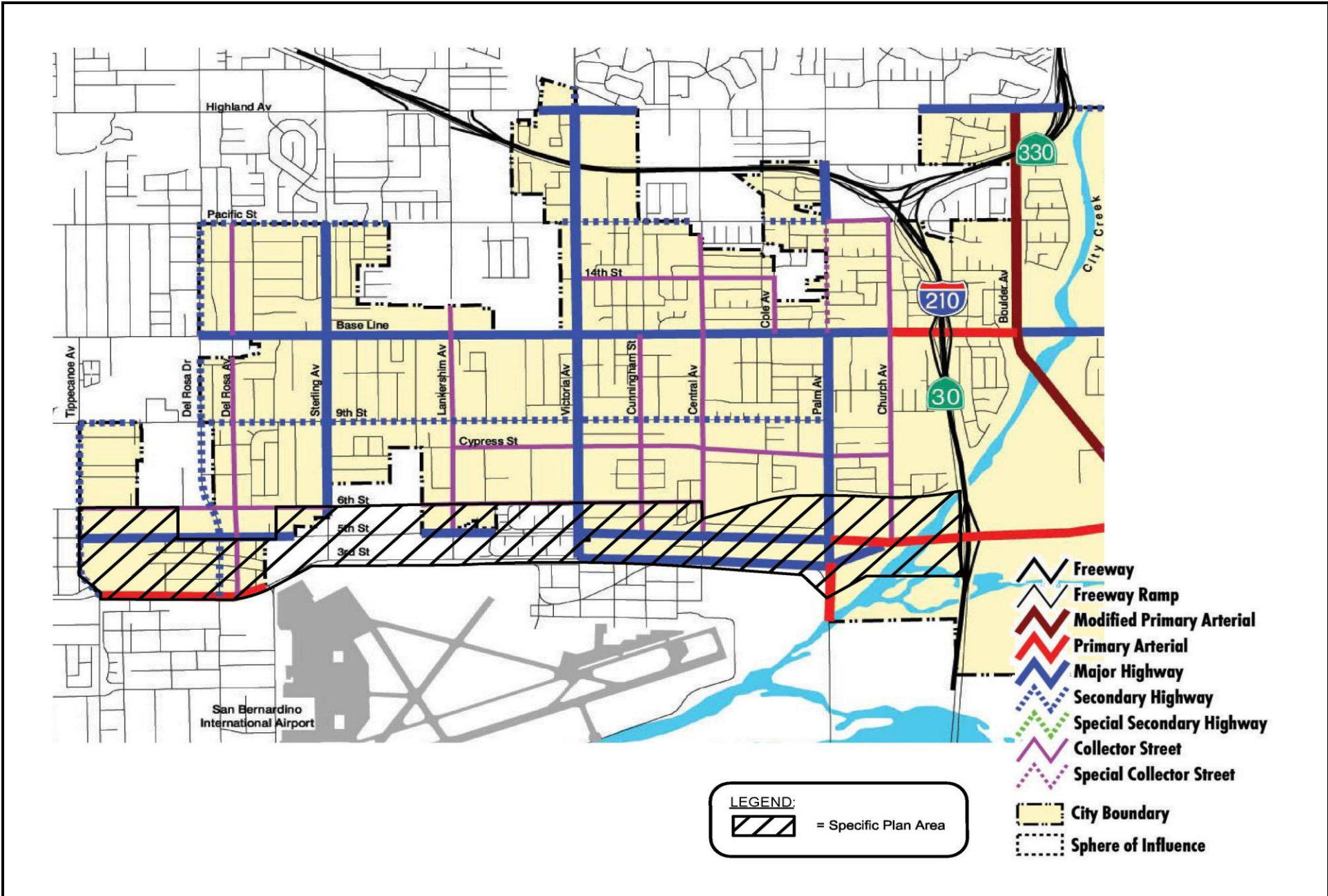


COLLECTOR STREET

FOR USE IN QUARTER MILE STREETS,
SCHOOL AND INDUSTRIAL AREAS.

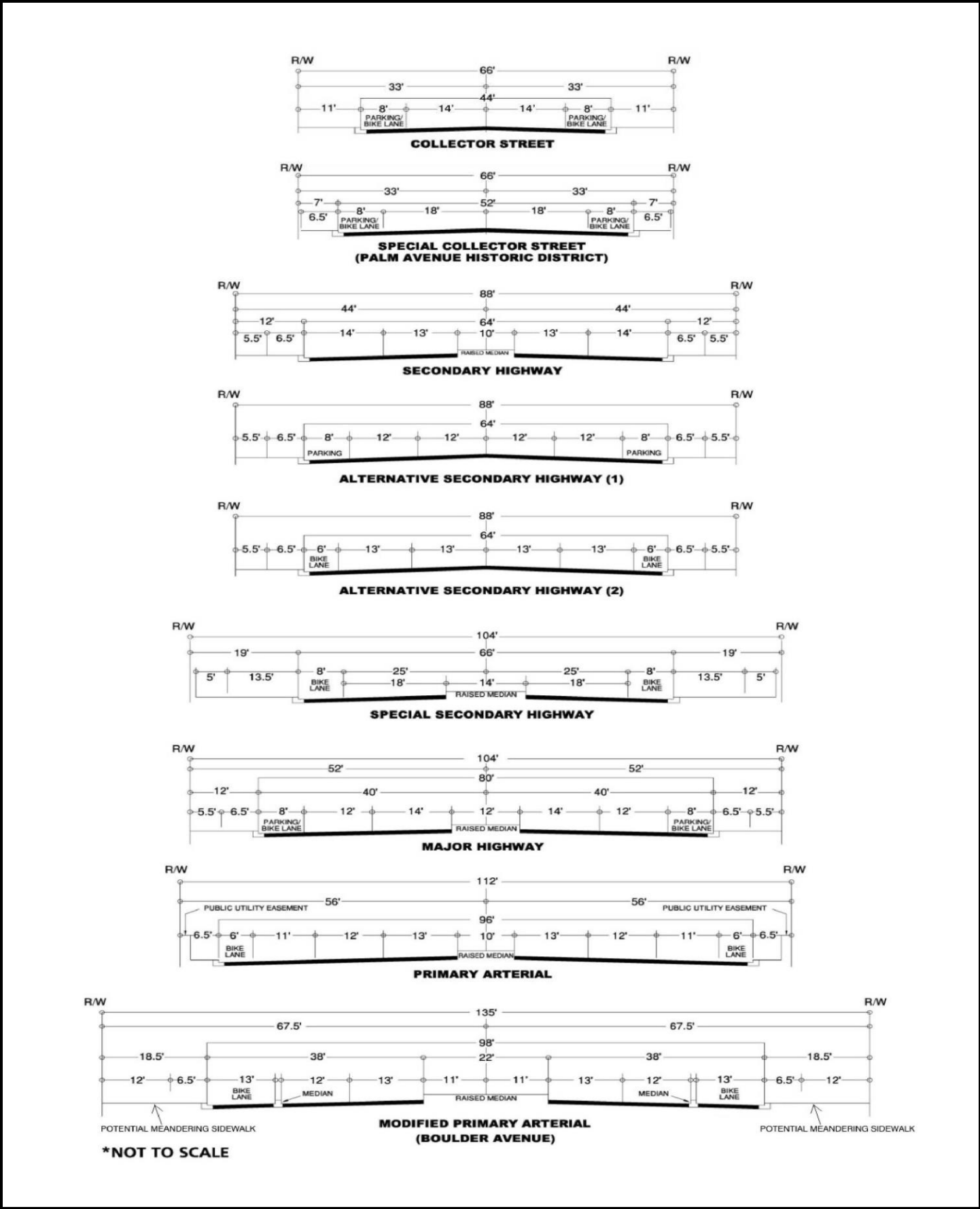
SOURCE: Kimley Horn, Traffic Impact Study, April 2020

FIGURE 3-11b



SOURCE: Kimley Horn, Traffic Impact Study, April 2020

FIGURE 3-12a



SOURCE: Kimley Horn, Traffic Impact Study, April 2020

FIGURE 3-12b

CHAPTER 4 – ENVIRONMENTAL IMPACT EVALUATION

All Chapter 4 figures are located at the end of each subchapter; not immediately following their reference in text.

4.1 BACKGROUND

The Inland Valley Development Agency (IVDA or Agency) is a joint powers agency in the west San Bernardino Valley that was created to facilitate redevelopment of the former Norton Air Force Base and the surrounding area in the early 1990s. The Airport Gateway Specific Plan (AGSP) represents a long-range plan for the development of the area immediately north of the Airport that functions as the front door to the San Bernardino International Airport, and when adopted will guide all future development proposals and other improvements in the Specific Plan area. The IVDA has prepared a programmatic Draft Environmental Impact Report (DEIR) to evaluate the potential significant environmental impacts that may result from implementing the (AGSP).

As the agency that has compiled the AGSP, IVDA will serve as the Lead Agency for purposes of complying with the CEQA. IVDA has prepared the AGSP DEIR as the Lead Agency, in cooperation with the City of Highland, City of San Bernardino, and East Valley Water District as responsible agencies. Other agencies that may be Responsible Agencies or Trustee Agencies are listed under Subsection 3.15 of the Project Description.

IVDA has prepared the Airport Gateway Specific Plan Project Draft Environmental Impact Report that evaluates the potential environmental impacts that would result from implementing the proposed Project. This chapter of the DEIR provides the detailed information used to forecast the type and significance of potential environmental impacts that implementation of the proposed project and related actions could cause if the project is implemented as described in Chapter 3, the Project Description.

In the following subchapters, as discussed in Chapter 2 of this document, each of the 20 topics identified in Appendix G of the CEQA Guidelines will be analyzed as follows: aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, energy, geology/soils, greenhouse gas emissions/climate change, hazards and hazardous materials, hydrology/water quality, land use/planning, mineral resources, noise, population/housing, public services, recreation, transportation, tribal cultural resources, utilities/service systems, and wildfire. The environmental impact analysis section for each environmental topic is arranged in the following manner:

- a. An introduction that summarizes the specific issues of concern for each subchapter, as identified in the NOP scoping process;
- b. The regulatory setting that applies to the environmental issue, looking at local, State and federal laws and regulations that may establish thresholds for use in evaluating potential significance of the issue;
- c. A summary of the current or the existing environmental setting or conditions for each physical resource or human infrastructure system is presented as the baseline from which impacts will be forecast;
- d. Using the questions provided in Appendix G of the state CEQA Guidelines, the specific thresholds of significance used to evaluate each environmental issue are identified;
- e. The methodology used to evaluate the environmental issue in a subchapter is explained;
- f. Based on stated assumptions and identified criteria or thresholds of significance, the potential direct and indirect impacts of the proposed project are forecast and the significance of

impacts is assessed without applying any mitigation; where mitigation is required to reduce a potential impact to a less than significant impact level, this need is explained.

- g. Recommended measures that can be implemented to substantially lessen potential environmental impacts are spelled out, and their effectiveness in reducing impacts to non-significant levels is described;
- h. Potential cumulative environmental impacts may occur, they are characterized and are assessed under each environmental topic, where applicable; and,
- i. Any significant and/or unavoidable environmental impacts and any significant impacts that may be caused by implementing mitigation measures are addressed.

To provide the reviewer with a criterion or set of criteria with which to evaluate the significance of potential environmental impacts, this document provides issue specific criteria, i.e., thresholds of significance, for each topic considered in this DEIR. These criteria are either standard thresholds, established by law or policy (such as ambient air quality standards or thresholds of significance established by the South Coast Air Quality Management District) or project-specific evaluation thresholds used specifically for this project. After comparing the forecasted physical changes in the environment that may be caused by implementing the proposed project with the issue specific significance threshold criterion or criteria, a conclusion is reached on whether the proposed project has the potential to cause a significant environmental impact for the issue being evaluated.

Where appropriate and feasible, mitigation measures to reduce potential significant environmental impacts are identified and described in this section of the DEIR. Over the past several years, mitigation has evolved in scope and complexity. As environmental issues are addressed in a progressive and adaptive manner, previous measures developed to mitigate project specific impacts are eventually integrated into local, regional, state and federal statutes, rules and regulations, such as the Uniform Building Code or Water Quality Management Plans. Mitigation measures that are incorporated into statutes or rules and regulations become mandatory requirements (not discretionary) and they no longer need to be identified as discretionary mitigation measures applicable to the project, although they are often referenced to demonstrate that identified environmental impacts can and will be mitigated.

The text in the following subchapters summarizes all of the various measures anticipated to be incorporated into the project to reduce potential significant environmental effects, either to the extent feasible, or to a level of less than significant impact. After determining the degree of mitigation that can be achieved by the proposed measures and after identifying any potential adverse impacts that the mitigation measures may cause, a conclusion is provided regarding the remaining level of impact, such as less than significant and/or unavoidable significant adverse impact for each environmental topic, if any.

To the extent feasible, this document utilizes conservative assumptions in making impact forecasts based on the assumption that, if impacts cannot be absolutely quantified, the impact forecasts should over-predict consequences rather than under-predict them. The many technical studies that were prepared for this document are incorporated into this chapter by summarizing the technical information to ensure technical accuracy. These technical studies themselves are compiled in a separate volume of the DEIR (Volume 2) which will be distributed in electronic form and made available to all parties upon request. The information used and analyses performed to make impact forecasts are provided in depth in this document to allow reviewers to follow a chain of logic for each impact conclusion and to allow the reader to reach independent conclusions regarding the significance of the potential impacts described in the following subchapters.

4.2 AESTHETICS

4.2.1 Introduction

This subchapter evaluates the environmental impacts to aesthetic issues from implementation of the Airport Gateway Specific Plan (AGSP, proposed project). The Inland Valley Development Agency (IVDA) proposes to analyze the following Aesthetic environmental issues as potentially significant impacts in this Draft Program Environmental Impact Report (DPEIR): Have a substantial adverse effect on a scenic vista; Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway; 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 or other regulations governing scenic quality; Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

These Aesthetic issues will be discussed in this subchapter in the following framework:

- 4.2.1 Introduction
- 4.2.2 Regulatory Setting
- 4.2.3 Existing Conditions
- 4.2.4 Thresholds of Significance
- 4.2.5 Methodology
- 4.2.6 Environmental Impacts
- 4.2.7 Mitigation Measures
- 4.2.8 Cumulative Impact
- 4.2.9 Significant and Unavoidable Impacts

References utilized for this section include:

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*

No comments were received regarding this issue from the public at the public scoping meeting or in response to the Notice of Preparation.

The intensity (floor area ratio (FAR) for future structures) of development allowed by the Specific Plan for the proposed project is addressed in the Land Use subchapter of the DPEIR, Section 4.12, which is provided in this Draft EIR.

4.2.2 Regulatory Setting

State and local laws, regulations, plans, or guidelines that are applicable to the proposed project are summarized below.

State

California Building Code: Building Energy Efficiency Standards

Energy conservation standards for new residential and non-residential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) (“CEC”) in June 1977 and most recently revised in 2016 (Title 24, Part 6, of

the California Code of Regulations). 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 CEC adopted the 2020 Building Energy Efficiency Standards, which went into effect on January 1, 2020. Title 24 requires outdoor lighting controls to reduce energy usage; in effect, this reduces the intensity of outdoor lighting.

California Scenic Highways Program

The California Scenic Highways program was established in 1963 to “preserve and protect scenic highway corridors from change which would diminish the aesthetic value of lands adjacent to highways.” The state laws governing the Scenic Highway Program are found in the Streets and Highway Code, Section 260 *et seq.* No State designated or eligible scenic highways exist within the project area.

California Supreme Court

The question regarding guarantee of views is one of the few qualitative environmental issues that the California Supreme Court has addressed. The California Supreme Court addressed this issue in the later 19th century in the case of *Kennedy v. Burnap* when it made the following ruling: “*The simplest rule that is best suited to a country like ours, in which changes are taking place in the ownership and the use of lands, is that no right [to views] can be acquired without the express grant of an interest in, or covenant relating to, the lands over which the right is claimed.*” According to an article by Attorney David Swedelson (undated) “*one’s ownership of land does not imply a right to force owners of land to refrain from obstructing the view from the land or the light and air reaching the land. This law has not changed all that much since the case was decided in 1898.*”

Other State Courts

On the other-hand several lower court cases have addressed “view” or “vista” issues of potential impacts to views or vistas in the context of CEQA. These cases have concluded that if a public or private development may create a significant alteration (impact) to an existing view (which is part of the existing physical environment), then an EIR must be prepared, analyzing the potential impacts and possible mitigation measures or alternatives. The three pertinent court cases regarding impacts to views/vistas are:

- *Ocean View Estates Homeowners Association, Inc. v. Montecito Water District (2004) 116 Cal.App.4th 396*
- *Quail Botanical Gardens Foundation, Inc. v. City of Encinitas (1994) 29 Cal.App.4th 1597*
- *Mira Mar Mobile Community v. City of Oceanside (2004) 119 Cal.App.4th 477*

The first issue of focus regarding potential view impacts discussed in these court cases is whether a view is public or private. Based on the information presented in the referenced cases, the lead agency preparing the EIR has the discretion to determine what qualifies as a significant visual impact. In general, public views are given higher priority of importance, but a lot depends on what priority a lead agency assigns views and scenic vistas within its policy documents, General Plan and Development Code. To quote a portion of the Mira Mar text: “the lead agency preparing the EIR has discretion as to what qualifies as a “significant” impact, based on the nature of the affected area.” “In exercising its discretion, a lead agency must necessarily make a policy decision in distinguishing between substantial and insubstantial adverse environmental impacts based, in part, on the setting.” *Id.* at 493.

The following text, abstracted from the *Mir Mar* appellate court decision, characterizes the flexibility and constraints that a local jurisdiction has when considering significance of scenic vista impacts from a CEQA perspective.

Based on this evidence, plaintiffs assert the City abused its discretion by certifying the Final SEIR without analyzing the impacts the project would have on views from their adjacent private property.

Under CEQA, the question is whether a project will affect the environment of persons in general, not whether a project will affect particular persons. (Association for Protection etc. Values v. City of Ukiah (1991) 2 Cal.App.4th 720, 734.) Additionally, California landowners do not have a right of access to air, light and view over adjoining property. (Wolford v. Thomas (1987) 190 Cal.App.3d 347, 358.) Plaintiffs concede this authority, but claim they are merely attempting to enforce CEQA's requirement that the City identify and mitigate the significant environmental effects of a project before approving it. (CEQA Guidelines, §§ 15002, 15021.)

An EIR must identify the "significant environmental effects" of a proposed project. (§ 1100, subd. (b)(1); CEQA Guidelines, § 5126, subd. (a).) For purposes of CEQA, "environment" means physical conditions existing "within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, objects of historic or aesthetic significance." (§ 21060.5.) Thus, aesthetic issues, such as public and private views, are properly studied in an EIR to assess the impacts of a project. (§ 21100, subd. (d); Ocean View Homeowners Ass'n, Inc. v. Montecito Water Dist. (2004) 116 Cal.App.4th 396, 402-403.) However, a lead agency has the discretion to determine whether to classify an impact described in an EIR as "significant," depending on the nature of the area affected. (CEQA Guidelines, § 15064, subd. (b); National Parks & Conservation Assn. v. County of Riverside (1999) 71 Cal.App.4th 1341, 1357 [varying thresholds of significance may apply depending on nature of area affected].) In exercising its discretion, a lead agency must necessarily make a policy decision in distinguishing between substantial and insubstantial adverse environmental impacts based, in part, on the setting. (CEQA Guidelines, § 15064, subd. (b).) Where the agency determines that a project impact is insignificant, an EIR need only contain a brief statement addressing the reasons for that conclusion. (CEQA Guidelines, § 15128.)

Based on the threshold criteria for significance presented in the Final SEIR, the City concluded the project would have no significant effects on "Aesthetics/Landform Alteration." Plaintiffs challenge this conclusion, claiming the significance criteria set forth in the Final SEIR did not distinguish between public and private views and the City abused its discretion because substantial evidence revealed that Mira Mar residents would lose their ocean view. While use of the term "scenic vista" in the Final SEIR could possibly refer to views from both public and private vantage points, review of the underlying plans and policies reveal that the City drew a distinction between public and private views, determine that only impairment of the former would constitute a significant impact.....

The Final SEIR indicated that the project was within the river specific plan, specifying that visual qualities must be considered and protected as a resource of public importance. After reviewing the project from four public vantage points, the Final SEIR concluded that the project complied with the City's policy "in that [it] has been designed and sited to protect public views." Because Mira Mar is not a "public vantage point," the Final SEIR concluded that any impact on plaintiffs' private views was not significant and that the project conformed to the policies regarding impact on public views and would have no significant adverse impact on visual quality.....

Moreover, as the City indicated in its written response to public comments, neither state nor local law protects private views from private lands and the rights of one private landowner cannot prevail over the rights of another private landowner, except in accordance with uniformly applied standards and policies as expressed in the City's general plan, redevelopment plan, local coastal program and zoning ordinances. Because the City applied the policies contained in the local coastal program, we conclude it did not abuse its discretion by concluding that the project would have no significant effects on aesthetics, including views.

Local

An in-depth review of the General Plans of the City of Highland and San Bernardino was conducted to identify those goals or policies that discuss or describe the City's position regarding scenic views or scenic vistas. Both City General Plans highlight the exceptional visual setting created by the San Bernardino Mountains and the Santa Ana River floodplain that bracket each City's visual setting. Each of the General Plan Elements and the Introductions to the General Plans were reviewed for references or discussions of visual settings, resources and any protections of these resources. Where an element is not discussed it does not have any specific goals or policies regarding scenic views, vistas or resources.

City of Highland

Chapter 1: Introduction: *"We have always been grateful for the natural frame which Highland nestles the expansive San Bernardino National Forest and the upper reaches of the Santa Ana River, just as it drops down out of the San Bernardino Mountains at Seven Oaks Dam. Some of this natural terrain defines important spaces within Highland as well. Along with other Inland Empire communities that are realizing how crucial this natural setting is to their long-term community identity, we expand the priority for these areas in our new policies."* Page 1-2

This text identifies the important visual setting and resources that help define the City and focuses on protecting them as resources. It does not focus on protection of either public or private views of these resources in this text. However, it acknowledges the importance of the San Bernardino Mountains as the City's backdrop to the north and east and the Santa Ana River floodplain to the south.

Chapter 2: Land Use Element: About the City's Vision as expressed in the General Plan, the City seeks to: *"Preserve natural resources."* Page 2-19

A primary focus of the Land Use Element is to ensure quality design where development is permitted and to protect the natural environmental (visual) setting. Community priorities did not focus on views or vistas, but instead focus on protecting the natural beauty of the natural resources (mountains, hills, and waterways) themselves, i.e., to minimize changes in the beauty of the natural resources themselves, not the views to them.

Neighborhoods are a major source of pride for Highland residents and are defined by the quality of their homes, the diversity of their residents, the beauty of their streetscapes, the views of the natural landscape, and the availability of and access to open space and recreation opportunities. Page 2-23

This comment occurs in the section regarding "Protecting and Enhancing Neighborhoods" in relation to Land Use Goal 2.2. It references neighborhood views of the natural landscape, but neither the goal or the policies reference protection of such views, either public or private.

"Many, if not most, residents of Highland moved here because of the City's extraordinary environmental setting, which provides recreational, ecological and scenic value. The City's natural resources are one of the primary defining aspects of Highland's livability and character." Page 2-29

Land Use Element: Goal 2.7

Encourage natural resource and open space preservation through appropriate land use policies that recognize their value and through the conservation of areas required for protection of public health and safety.

Land Use Element: Policy 4

Preserve areas designated as Open Space to provide for recreation, preservation of scenic and environmental values, managed production of resources (agriculture, water reclamation and conservation, mineral extraction) and protection of public safety.

In the preceding text the primary focus is on preserving areas with scenic resources or that serve as open space from development that would directly modify (adversely impact) the visual quality of the scenic resource itself. The focus is not on preserving existing scenic views to such scenic resources, but preventing modifications to the scenic resource itself.

Chapter 3: Circulation Element: *“Scenic Roadways: The existing roadway system is primarily designed to be an efficient circulation system to move people and goods. Enhancement and viewing of aesthetic and scenic resources were not factors which contributed to the design of existing roadways.*

Scenic resources within the City and its planning area include unique visual features that provide attractive views within or from the study area. Major visual resources include topographic features, local flora, and historic buildings. In general, views of local topographic features, such as the San Bernardino Mountains or the Santa Ana River area, should be considered in any roadway design. Roadway development in the north/central part of the City must be sensitive to existing, and potentially significant, historical resources included in the Historic Village District.

Because of their importance as community resources, scenic opportunities should be improved along Boulder Avenue, Base Line and Palm Avenue. In addition to these proposed scenic routes, the following local roadways also should be considered as potential scenic routes, due to the significance of resources which can be viewed from Greenspot Road and Base Line (from Boulder Avenue to Weaver Street). Page 3-15

Circulation Element: Goal 3.3

Preserve and enhance uniquely scenic or special visual resource areas along appropriate routes for the enjoyment of all travelers.

Circulation Element: Policy 1

Designate the following roadways as Scenic Highways and establish guidelines that protect visual resources in the community and allow for the development of additional recreational opportunities: Boulder Avenue; Base Line (east of City Creek); Palm Avenue; Greenspot Road; Church Street; and Highland Avenue (east of City Creek).

Circulation Element: Policy 2

Attractively landscape and maintain Highland’s Secondary Highways, Special Secondary Highways, Major Highways, Primary Arterials, and Modified Primary Arterials and prepare/implement distinctive streetscape plans.

Circulation Element: Policy 3

Take actions as may be necessary to protect scenic routes, including but not limited to: regulation of land use and intensity of development; detailed land and site planning; control of outdoor advertising; careful attention to and control of grading and landscaping; and careful design and maintained appearance of structures and equipment.

It is under the Scenic Roadway section that we see the first General Plan references to “preserve and enhance” scenic views/vistas. Of the roadways identified for scenic views, only one occurs within the AGSP project area. This is Palm Avenue (north-south, between the City Creek Bypass channel on the north and just south of Third Street on the south). West of the 210 Freeway, Greenspot Road is designated as 5th Street. Policy 2 does require “attractive” landscaping and distinctive streetscape plans for many of the roadways within the Specific Plan, but no other roadways are identified as scenic roadways designed to protect and/or enhance access to scenic views.

Chapter 5: Conservation and Open Space Element: *“Perhaps nothing is as important to maintaining the small-town character and natural setting in Highland as the preservation of open-space land. Due to its unique setting, the City of Highland has a special duty to protect and enhance its many natural gifts—its land, water, air quality and biological resources. It is bordered on the north and east by the San Bernardino Mountains and San Bernardino National Forest. The City is traversed by two significant watersheds, contains important habitat areas and has large areas of open land on the east, including mining and agricultural activities.”* Page 5-1

This is a restatement of one element of the City’s primary vision of maintaining its relationship with the surrounding natural environment.

“The citizens of Highland have always been proud of their city’s rural character and have consistently expressed a desire to preserve and enhance open space and recreational values. The following issues have been identified as most important: ... Protect and enhance scenic vistas...” Page 5-2

“Scenic Resources: Highland enjoys a beautiful and dramatic setting at the base of the San Bernardino Mountains. The view and vistas that this area affords are among Highland’s most treasured assets and contribute greatly to its rural, natural character. Although the City does not regulate private views, it has long realized the importance of view corridor planning in both public and private development. Preserving views of the San Bernardino Mountains and stretches of open space along City Creek and the Santa Ana River will continue to be very important to creating and maintaining a sense of community in Highland. View preservation also includes careful regulation of hillside development by encouraging low profile massing and natural colors and building materials. Page 5-4

Conservation and Open Space Element: Goal 5.1

Preserve, maintain and create views and vistas throughout the community to enhance the visual experience of Highland.

Conservation and Open Space Element: Policy 1

Incorporate view corridor planning in related development efforts and capital improvement programs.

Conservation and Open Space Element: Policy 2

Along roadway-based view corridors, frame views of attractive features of the natural and built environment with appropriately placed median and street tree landscaping.

Conservation and Open Space Element: Policy 3

Enforce hillside development standards that call for natural contour grading, environmentally sensitive design, shape and siting techniques, and fire-retardant building materials.

Conservation and Open Space Element: Policy 4

Work with San Bernardino County and the City of San Bernardino to develop consistent regulations for the protection of ridgelines, slope areas and hilltops within surrounding foothill communities.

Conservation and Open Space Element: Policy 9

Preserve mature trees, natural hydrology, native plant materials and areas of visual interest.

The preceding section states the City's primary policy regarding scenic views and vistas within the community. Views are considered an essential element within the City, but the City does not intend to regulate private views. The focus on protecting views and vistas is to protect existing public views, primarily along existing street corridors; to minimize adverse alteration to existing elements of scenic views (ridgelines, hilltops, slope areas and other elements, such as stream floodplains); and to incorporate protection of views to the extent feasible when reviews of proposed new development in the community are carried out.

"Trails and equestrian use have a strong tradition in Highland... The proximity of mountains, rivers and open space has made equestrian, hiking and biking uses both popular and practical. The views afforded from area trails and bikeways are some of the finest in the region..." Page 5-45

This is an acknowledgment that trails can also provide important access to scenic visual resources in the community.

Chapter 10: Community Design Element: *"Highland is a great place to live, and the City is working to make it an even better place. Part of that appeal is based on community aesthetics—combining a beautiful physical setting with attractive development. To guide this process, this Community Design Element describes the goals, policies and actions designed to improve the image, character and quality of the City..."*

Community or urban design is the process that creates the visual identity of the City and its communities...the Community Design Element focuses more specifically on the form and character of the built environment—groupings of buildings, public spaces, neighborhoods, streetscapes and public improvements..." Page 10-1

As the preceding statement indicates, the focus of the Community Design Element is not on surrounding visual natural resources, but on the man-made character of the City and its neighborhoods.

"...The Community Design Element...establishes policy on community-wide design features such as gateways, arterials, signage, as well as crafting special policies for specific districts within the City..." Page 10-2

This statement identifies the Design Elements' broad or community-wide expectations from future development within the City. This is not a focus on open space and the natural visual setting but instead is a focus on the future man-made community features that establish the City's identity. The City Development Code handles the project-by-project design requirements mandated by the City. Figure 4.2-1 (Figure 10.1 of the General Plan) contains the Community Design Map that shows the community-wide features identified is important to the City. The goal of the Design Element is to build on the existing City-wide man-made and natural settings and strengthen the City's physical image/identity.

Some of the specific goals, policies and actions contained in the Highland Community Design Element that will affect either important views or future development within the AGSP include the following:

Community Design Element: Goal 10.1

Create a unified and attractive community identity within the context of diverse neighborhoods and land uses.

Community Design Element: Policy 3

Identify, preserve and enhance view corridors of major landmarks, community facilities and natural open space in the planning and design of all public and private projects.

Enhanced Arterial Corridors: “3rd and 5th Streets. As major corridors into and through the industrial/business park districts and providing access to the San Bernardino International Airport, these arterials will receive more formal, skyway landscape treatment. In keeping with high traffic volumes, formal placement of trees, light standards, banners and signage will provide a distinctive, “international parkway” image. Victoria Avenue. Serving as a major entryway for passenger traffic to the San Bernardino International Airport, Victoria Avenue will be improved to reinforce the importance of this arterial as an entryway into the city and as a link to the airport.”

Page 10-8

Community Design Element: Goal 10.2

Create attractive and visually unified major arterial corridors through specialized streetscape and landscape improvement plans.

Actions (pertinent to the AGSP): 1) Develop plans for design enhancements at key intersections to include specialized paving, enlarged setbacks and accent landscaping and signage. 2) Continue to underground utility lines along the City’s arterial corridors. 3) Develop sign guidelines for major arterials. 4) Develop a specialized streetscape plan for 3rd and 5th Streets featuring a formal street and landscape plan along with appropriate gateway and monument signage for the developing industrial/business park area. 5) Develop specialized streetscape plan for Victoria Avenue featuring formalized landscaping and signage that identifies the entrance to Highland and the San Bernardino International Airport. 6) Methodically upgrade existing structures to improve aesthetics and compatibility with adjacent uses along the corridor. 7) Lower the height of street monument signs to street level. and 8) Choose median tree species that reflect the historic traditions of the City and are consistent with indigenous vegetation.

“The City of Highland has an excellent opportunity to guide quality development in its industrial and business park areas. These areas in the southwestern parts of the City hold tremendous value for future growth and investment. Conveniently located along the 5th Street Corridor, which serves as the primary gateway to the San Bernardino International Airport from SR-30, this industrial area is in a prime location for future development.” Page 10-20

The preceding text identifies the actions that both the City, the AGSP and future developers will need to follow in order to implement the City’s vision for industrial/business park development within the AGSP area.

This ends the regulatory goals/policies/action discussion regarding aesthetics for the City of Highland.

City of San Bernardino

Chapter 1: Introduction: *“Since its founding in 1854, San Bernardino has become a vibrant community with an unusual array of features... all situated in a remarkable setting between the foothills of the San Bernardino Mountains and the Santa Ana River.”* Page 1-2

“Our community sits in the edge of a vast wilderness. While this is a blessing in terms of views, recreational, and living opportunities, there is an inherent danger from the fires, earthquakes, and floods, which are the very processes that have helped to create our natural splendor.” Page 1-22

This focus on the City of San Bernardino's "remarkable" visual setting is similar to that found in the City of Highland's General Plan. The San Bernardino General Plan places the same general level of value on these natural topographic features throughout its General Plan, although as the second comment notes, the beauty of the wilderness that surrounds both cities also presents dangers to society and our communities.

Chapter 2: Land Use:

Land Use Element: Goal 2.5

Enhance the aesthetic quality of land uses and structures in San Bernardino.

Land Use Element: Policy 2.5.6

Require new developments be designed to complement and not devalue the physical characteristics of the surrounding environment, including consideration of: a. The site's natural topography and vegetation; c. Linkages to pedestrian, bicycle, and equestrian paths; g. The use of extensive site landscaping; k. The articulation of building facades to provide interest and variation by the use of offset planes and cubic volumes, building details, balconies, arcades, or recessed or projecting windows, and other techniques which avoid "box"-like structures; m. the screening of rooftop mechanical equipment; o. The provision of art and other amenities

Land Use Element: Goal 2.6

Control development and use of land to minimize adverse impacts on significant natural, historic, cultural, habitat, and hillside resources.

Land Use Element: Policy 2.6.1

Hillside development and development adjacent to natural areas shall be designed and sited to maintain the character of the City's significant open spaces and historic and cultural landmarks.

This Policy Capitalizes on the recreational and environmental resources offered by the Santa Ana River and Cajon Wash by requiring the dedication and development of pedestrian and greenbelt linkages.

"The Community Design element provides policy guidance that respects San Bernardino's diverse context while seeking to unify the City through carefully crafted design policies. ...The element addresses the following aesthetic issues: Community wide design issues, District or neighborhood aesthetic consideration, and Individual land use design considerations." Page 5-1

The focus of this goal and related policies is on controlling development impacts on scenic resources, not protecting views to these scenic resources. The Community Design Element focuses on those community -wide design issues, not on views.

Chapter 6: Circulation: *"Scenic highways and routes are a unique component of the circulation system as they traverse areas of unusual scenic or aesthetic value. As shown on Figure C-1, Scenic Highways/Routes, two roadways within the City have been nominated for official Scenic Highway status. The portions of State Route 30, south of the 330, and State Route 330 that pass through the City are designated as Eligible Scenic Highways.*

Due to the designation as Eligible Scenic Highways, the provisions of the California Scenic Highways program apply to these sections of the roadways in the City... This program provides guidance for signage, aesthetics, grading, and screening to help maintain the scenic value of the roadway." Page 6-7

The map (Figure C-1) showing the scenic highway resources in the City is reproduced here as Figure 4.2-2. Under Goal 6-4, Policies 6.4.4 through 6.4.7, the City establishes a policy to implement the scenic highway design requirements for projects within the eligible scenic highway roadways. Again, the focus is on project design and not protection of scenic views or vistas.

Chapter 12: Natural Resources and Conservation:

Natural Resources and Conservation Element: Goal 12.8

Preserve natural features that are characteristic of San Bernardino's image.

Natural Resources and Conservation Element: Policy 12.8.1

Carefully review new projects on properties that: a. Contain sloping topography; b. Provide limited abilities to provide infrastructure to new development based upon severely sloping terrain; c. Provide natural vistas or views enjoyed by the community; or d. Serve as landmark features within the City.

Natural Resources and Conservation Element: Policy 12.8.2

Condition or modify plans to preserve the City's natural features to the extent possible.

Natural Resources and Conservation Element: Policy 12.8.3

Review grading, access, and site plans for projects to ensure that they are sensitively designed to minimize impacts to the City's natural features.

Natural Resources and Conservation Element: Policy 12.8.4

Explore the designation of open space easements to preserve valuable natural features in the City.

In this chapter of the General Plan, the City elaborates its policies to implement the measures designed to minimize impacts to natural features with the focus on project design and not protection of scenic views or vistas. However, Policy 12.8.4 does express a desire by the City to preserve valuable natural features through the use of open space easements which can preserve such scenic resources in perpetuity.

There may be small areas of unincorporated County area within the AGSP, but this document will utilize the aesthetic goals and policies of the two City General Plans to address the Aesthetic issues within this subchapter of the DPEIR.

4.2.3 Existing Conditions: Aesthetics

The Airport Gateway Specific Plan (AGSP) area contains a mix of land uses that reflect the past history of the of the property located just north of the former Norton Air Force Base. The AGSP area currently contains a number of undeveloped parcels. Some were never developed, such as those parcels located just east of Sterling Avenue between 3rd and 6th Streets. On the other hand, the currently undeveloped properties just west of Victoria Avenue, between 3rd and 6th Streets, were previously developed with Air Force housing that has since been cleared from the property. Single-family residences occur in clusters (for example, immediately east of Tippecanoe, along 5th and 6th Streets) with many of these residences constructed in the middle of the 20th Century after the former Air Base was commissioned. Interspersed throughout the AGSP area are industrial facilities of varying sizes and types, ranging from small lot to large lot industrial activity. Out of the approximate 678-acre AGSP area, there are a few new structures/developments, with more activity in the past year than has historically occurred. There are three new light industrial buildings that have recently been constructed. These are located just east of Palm Avenue on 5th Street; located on the north side of 6th Street between Sterling and Lankershim; and just south of 5th Street just east of Lankershim. This change in land use is indicative of the transition envisioned in conjunction with the adoption of the AGSP.

To understand the existing man-made environmental setting within the proposed AGSP project area, please refer to the aerial photo in Figure 3-3, the Aerial Photo of the Project Site. Under current conditions there are five main types of land uses within the project area. Spread throughout the approximate 678-acre Specific Plan area are undeveloped parcels, particularly in the middle of the area on both sides (west and east) of Sterling Avenue between 3rd Street and 6th Street. At the intersection of Del Rosa Drive and 6th Street are two large institutional uses: Indian Springs High School and East Valley Water District's Sterling Natural Resources Center (a new tertiary water reclamation facility). There are two areas of concentrated residential uses (primarily older single-family residences with multi-family units) The first area is located south of 6th Street to 3rd Street just east of Tippecanoe. The second residential area is located between 6th and 5th Streets, east of Victoria. There are small industrial, commercial, and some institutional uses located throughout the Specific Plan area. The two most important commercial developed areas within the Specific Plan area occur along the north side of 3rd Street between Tippecanoe and Del Rosa and in the vicinity of the intersection of Palm Avenue and 5th Street.

Figures 4.2-3 through 4.2-11 show representative photos of the project area. With the exception of the undeveloped areas in the central portion of the Specific Plan area, scenic views or vistas from major east-west streets to the north are compromised by foreground interference of buildings constructed adjacent to these streets. Further, views to the east to Mts. San Bernardino and San Gorgonio are compromised by overhead power distribution lines. The opposite occurs on the major north-south streets, with adjacent buildings interfering with foreground views to the east and overhead power lines interfering with views toward Crestline, Lake Arrowhead the Running Springs.

In terms of general appearance, the Specific Plan area does not have any major scenic resources located within its boundaries. The developed areas may have attractive individual structures, but for the most part the area was developed in the mid-20th Century or earlier, and many areas are showing their age as illustrated in Figures 4.2-3 and 4.2-11.

4.2.4 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:

- AES-1 Have a substantial adverse effect on a scenic vista?
- AES-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
- AES-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 or other regulations governing scenic quality?
- AES-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

4.2.5 Methodology

The assessment of aesthetic impacts is subjective by nature. Aesthetics generally refer to the identification of visual resources internal to the project area and the change in scenic views or scenic vistas that a project's implementation may cause. This analysis attempts to identify and

objectively examine factors that contribute to the perception of aesthetic impacts due to implementation of a specific project, in this case the Airport Gateway Specific Plan. Potential aesthetic impacts can be evaluated by considering proposed grade separations, landform alteration, building setbacks, scale, massing, building height, and landscaping features associated with the design of future projects. It should be noted, however, that the cities of Highland and San Bernardino have not adopted locally designated or defined standards or methodologies (such as quantitative emission thresholds) for the assessment of aesthetic impacts. The best available criteria for evaluating aesthetic impacts in the cities of Highland and San Bernardino are each City's policies as defined in their General Plans. These policies are discussed in the following evaluation.

4.2.6 Environmental Impacts

AES-1 Would the project have a substantial effect on a scenic vista?

The "scenic vista" of concern in this evaluation is that which is currently available to existing residents and motorists using the local roadways that traverse the AGSP in both the north-south and east-west directions. The evaluation must first identify the available scenic vistas to the project area. To the north of the project area the main ridge of the San Bernardino Mountains extends generally from Cajon Pass on the west to Running Springs on the east. To the east is the continuation of the San Bernardino Mountains that extend from Running Springs to Mt. San Bernardino and Mt. San Gorgonio. Only minimal views exist to the Santa Ana River floodplain from within the project area due to the level topography and lack of visual access from the AGSP project area.

A series of photos taken from within the AGSP project area illustrates the character of the scenic vistas from a variety of locations. All views incorporate foreground and midground urban landscapes with the mountains forming the visual background view. View corridors exist along each of the major roadways (Tippecanoe, Sterling, Victoria and Palm to the north, and 3rd Street, 5th Street and 6th Street (to a lesser extent) to the east). However, in most cases foreground overhead power lines and poles reduce the value of the scenic vistas. Further, for vehicles traveling on any of these streets, adjacent structures (ranging from residential to industrial buildings and activities) reduce access to and value of existing scenic vistas. On some streets the reduced visual access is already substantial and on others visual access varies. In particular where undeveloped lots occur, scenic vistas are more accessible but still disturbed by man-made features in both the foreground (power lines and poles) and middle ground general urban development.

Overall, the conversion of the AGSP project area from smaller structures associated with existing residential and industrial facilities to medium-sized light industrial warehouses and business park office or research structures and uses will change the physical appearance of the project area. By implementing the AGSP community design requirements in both cities within the planning area, and as outlined in Chapter 5.0 of the AGSP, Design Standards and Guidelines. The future development is forecast to look more like that which is shown in Figure 4.2-12 through Figure 4.2-14, than shown on Figures 4.2-3 to 4.2-11. This includes gradual replacement of overhead power lines within the AGSP project area and widening of the roadways that will enhance east-west and north-south major roadways which will concurrently enhance views to the San Bernardino Mountains. Thus, the implementation of the AGSP is forecast to enhance these view corridors because the overhead power lines and power poles will gradually be eliminated due to undergrounding of power lines. Similarly, in the areas with the highest density existing development, the greater separation between future industrial structures may create additional

view corridors. However, at full development a traveler on the AGSP roadways will experience scenic vistas similar to existing areas with the greatest density of structures, such as residential development near (east of) Tippecanoe and residential development on 6th Street east of Victoria Avenue.

Given the Goals and Policies of both City's General Plans summarized above, implementation of the AGSP design guidelines will not cause direct negative modifications of any scenic resources that will comprise the regional scenic resources. There will be a change in the character of the project area with AGSP development, which has been envisioned by the cities, particularly the City of Highland. But due to the existing level of development within the AGSP and consistency with existing General Plan designations, the forecast modifications to scenic vistas will occur, but will fall below a level of significant impact due to the extent of existing development in the AGSP project area. By protecting and enhancing view corridors (roadways) to the background scenic resources located to the north and east, the proposed project will be consistent with General Plan goals and policies. With no or minimal conflicts in the previously summarized goals and policies, the potential impact to scenic vistas is also found to be a less than significant impact. Mitigation is identified below to address the issue of undergrounding power lines in the project area and enhancing the local views (views internal to the AGSP project area) by requiring landscaping and design consistency (as outlined in Chapter 5.0 of the AGSP that implements the General Plan Community Design concepts of both City General Plans).

AES-2 Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Two issues are raised under this topic. The first issue is whether there are State or any other scenic highways within the AGSP. There are none. Refer to Figures 4.2-1 and 4.2-2. The AGSP project area does contain corridors (roadways) with views to background scenic vistas, but these roadways are not designated as "scenic highways." Therefore, implementation of the proposed AGSP has no potential to adversely impact scenic resources adjacent to a designated scenic highway.

The second issue addresses the proposed project's impacts to potential scenic resources located within the AGSP project area. Based on detailed field reviews and the pertinent technical studies (cultural resources), the project area does not contain any rock outcroppings, historic structures of aesthetic significance, or any other intrinsic scenic resources. The AGSP project area is located on the lower elevation of an alluvial fan with little or no topographic diversity. As the existing site photos illustrate (Figures 4.2-3 through 4.2-11), the project area is an older developed area without any overt distinctive features. There are a few mature landscape trees, such as the introduced pines shown on Figure 4.2-8 (Victoria Avenue), that are notable, but such aesthetic resources can be preserved during future site-specific development review. A mitigation measure is presented below to address such rare occurrences. With implementation of mitigation, the proposed AGSP can be implemented without directly causing or indirectly contributing to substantial damage to scenic resources within the project area itself.

AES-3 Would the project, 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 or other regulations governing scenic quality?

The project area is component of an urbanized area within two cities that has been under slow development since World War II, when former Norton Air Force Base was established. Even the undeveloped lots are already bounded by the existing circulation system that will be retained. More than one-half the acreage (of the total 678 acres) contains structures and urban level service and utility infrastructure. The existing land use designation over most of the AGSP already supports industrial and business park uses. However, due to the ownership pattern (many small lots) in the project area, the AGSP is being proposed to jump start the conversion of the project area to these existing underlying land use designations. There are three primary scenic quality policy objectives in both cities. The first is to maintain view corridors. The proposed AGSP will facilitate this objective in both Highland and San Bernardino. The second primary scenic quality objective is to minimize modifications to scenic resources. Based on the identified lack of scenic resources within the AGSP project area, this evaluation concludes that the proposed project would not result in modifications to any scenic resources. Third, both cities have been seeking a unified design guide for the project area. This guidance is included in the AGSP, Chapter 5.0, which establishes consistent gateway, special treatment edges and site, building and landscape designs with a commitment to green design throughout the project area. Thus, the potential impact of the proposed project on scenic resources is concluded to be less than significant with no mitigation, and over the long-term these design guidelines in the AGSP should produce a beneficial, attractive job generating neighborhood that will serve as a transition buffer between the SBIA and residential uses north of 6th Street.

AES-4 Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The implementation of the proposed project will create new sources of light during the operational phases of the Project. Light and glare from street lights, interior and exterior building lighting, safety and security lighting, and vehicular traffic accessing the individual sites in the future will potentially occur once the project area is occupied. Future development within the AGSP shall implement lighting in accordance with each City's Development Code and the lighting design requirements in Subchapter 5.9 of the AGSP, which would ensure that any building or parking area lighting would not significantly impact adjacent uses. Regardless, the proposed development will introduce a new source of light and glare into the project area. It is also important to realize that as the AGSP is developed, fewer and fewer light sensitive uses will remain within the project area. The location with the highest potential for conflict will occur along the 6th Street interface between the industrial business park uses on the south side of 6th and the future residential on the north side of 6th Street.

To ensure that light or glare (particularly off of structures with glass exteriors) does not result in intrusive lighting or glare to existing or future structures or residences in the project area, mitigation measures will be implemented to control offsite light and glare impacts of future. Again, as noted above, internal to the AGSP (3rd and 5th Streets), there will be minimal conflicts between uses. However, at the west boundary of the AGSP (Tippecanoe Avenue) and along 6th Street, the transition to residential land uses on the north side of the street will require implementation of lighting mitigation to adequately buffer this transition in land uses. With the implementation of mitigation measures to control light and glare impacts, the implementation of the AGSP would have a less than significant potential to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

4.2.7 Mitigation Measures

The following mitigation measures shall be implemented to eliminate or mitigate aesthetic impacts identified in the preceding impact analysis.

- AES-1** *Each new development proposal in the future shall include undergrounding the above ground power lines and removal of power poles adjacent to or required to serve a project site, where required by Municipal regulations.*

- AES-2** *Landscaping will be required by each City for future projects developed under the AGSP. Both cities and the AGSP have identified landscape concepts/elements in the Community Design Elements of their respective General Plans and the AGSP (Chapter 5). The landscape plans for each future development shall be submitted to each City and incorporate these design concepts/elements. The landscape plans shall incorporate the buffer concepts identified in the General Plans and the AGSP to buffer the industrial uses on the south side of 6th Street from the residential uses on the north side of 6th Street.*

- AES-3** *Where mature tree resources of high aesthetic quality occur on a site, the future developers shall make all reasonable efforts to retain such singular scenic tree resources. Where such resources cannot be protected and retained on a project site, the developer shall provide aesthetic enhancements to the site acceptable to the City to offset the loss of such resources.*

- AES-4** *Prior to approval of the Final Design for future site-specific projects, an analysis of potential glare from sunlight or exterior lighting to impact vehicles traveling on adjacent roadways shall be submitted to the City for review and approval. This analysis shall demonstrate that due to building orientation or exterior treatment, no significant glare may be caused that could negatively impact drivers on the local roadways or impact adjacent land uses. If potential glare impacts are identified, the building orientation, use of non-glare reflective materials or other design solutions acceptable to the Cities of Highland and San Bernardino shall be implemented to eliminate glare impacts.*

- AES-5** *The new AGSP development along 6th Street and Tippecanoe Avenue will occur in a transition area between light industrial/business park uses on the one side of the road and residential uses on the other. Both cities require "buffer designs" on 6th Street to minimize conflicts between land uses. Exterior lighting for AGSP development on 6th Street shall be designed to minimize conflicts with the residential uses on the north side of this roadway. Lighting plans shall be prepared by future developers that minimize light and glare impacts on adjacent residential properties and they shall be reviewed and approved by the city with jurisdiction as fulfilling the intent and purpose of this measure.*

The IVDA and cities deem the preceding measures sufficient to reduce or eliminate the adverse aesthetic impacts identified under Subsection 4.2.6.

4.2.8 Cumulative Impacts

Cumulative impacts are those impacts of a proposed project when combined with other projects that may affect the same resource. The AGSP addresses an area of approximately 678 acres as depicted on Figure 3-2. Within this area it is forecast that the existing visual setting will transition

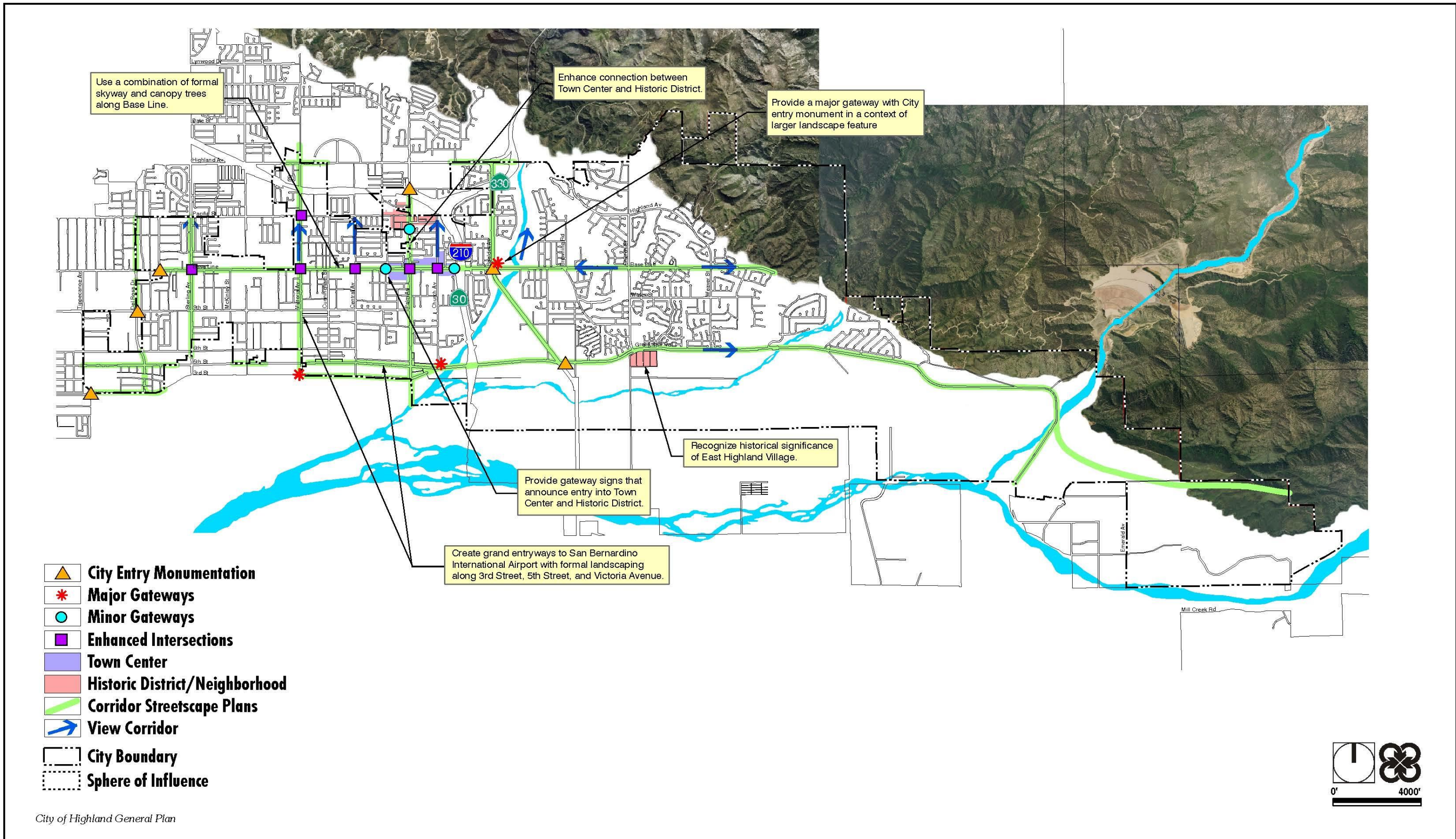
from the mix of undeveloped land and older residential/industrial development to an area of light industrial warehouses, offices, commercial development, and business park uses. Figures 4.2-3 through 4.2-11 and Figures 4.2-12 through 4.2-14 illustrate these different visual settings. Although there will be a change in the developed visual setting from implementing the AGSP, this change generally reflects the existing land use designations for the project area and no significant aesthetic impacts are forecast to result from the AGSP with implementation of mitigation measures. Thus, the future visual setting of the project area will reflect the expected visual setting as envisioned by both city's General Plans, with future modifications associated with the AGSP.

There have been recent projects implemented within the AGSP project area. As indicated in the preceding text, three new light-industrial warehouses have been constructed in the project area. In addition, a new light/industrial warehouse has been completed just south of 3rd Street (within the SBIA and west of Victoria Avenue, Amazon Air Regional Air Hub) and another large light/industrial warehouse is being developed (the Landing) by the San Manuel Band of Mission Indians on their property east of Victoria Avenue and south of 3rd Street. Finally, East Valley Water District is developing the Sterling Natural Resources Center (SNRC, a new wastewater treatment plant and community education facility) at 6th Street and Del Rosa Drive. All of these facilities have been developed in a manner consistent with the change in visual setting forecast to occur from implementing the AGSP.

Based on the anticipated change in visual setting within the AGSP and those other projects being developed independently in the general area, the potential aesthetic impacts are determined to be less than cumulatively considerable. No cumulatively significant aesthetic impacts will result from implementing the AGSP and other development in the project area.

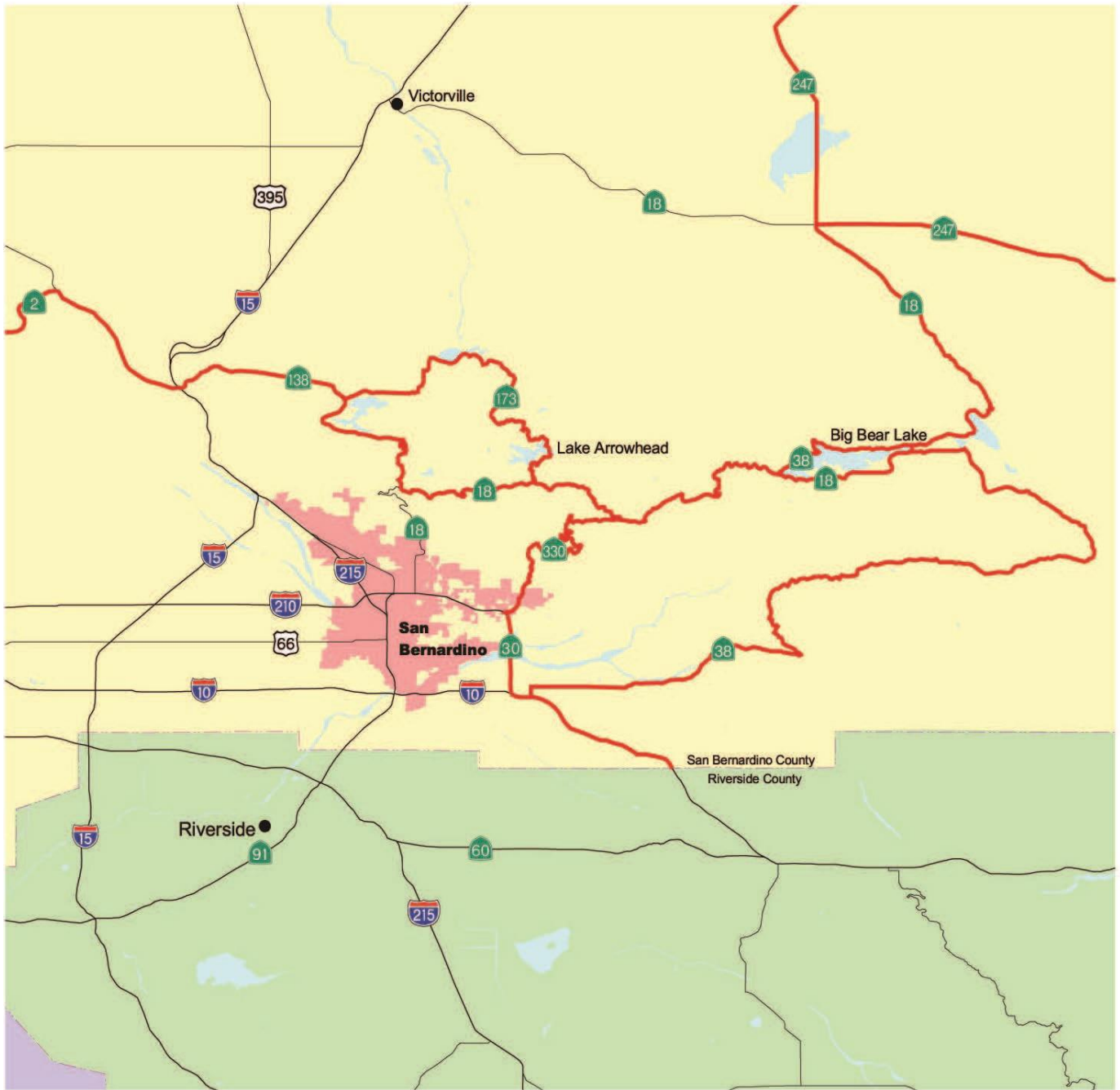
4.2.9 Significant and Unavoidable Impacts

As the preceding text acknowledges, there will be a change in the visual setting within the AGSP project area and this change is consistent with the development assumptions in both cities. Therefore, this forecast change is concluded to be a less than significant impact from both a project-specific and cumulative standpoint. To mitigate project specific impacts to scenic resources within the project area and the region, mitigation has been identified that is capable of reducing such impacts to a less than significant impact. Additional mitigation has been identified to address visual buffers on 6th Street (transition between land uses) and to control light and glare impacts of future development to minimize any conflicts with adjacent uses. Based on these mitigation measures regarding the proposed project's aesthetic impacts, these impacts are concluded to be less than significant. No unavoidable significant adverse aesthetic impacts will result from AGSP implementation given the design requirements contained in the two City General Plans; the two City Development Codes; and the AGSP design guidelines outlined in Chapter 5 of the AGSP.



SOURCE: City of Highland General Plan, March 2006 (Figure 10.1))

FIGURE 4.2-1



 Scenic Highways/Routes



SOURCE: City of San Bernardino General Plan (Figure C-1)

FIGURE 4.2-2



FIGURE 4.2-3



FIGURE 4.2-4

Tom Dodson & Associates
Environmental Consultants

6th St looking east, just east of Tippecanoe



FIGURE 4.2-5

Tom Dodson & Associates
Environmental Consultants

5th St looking east, just west of Sterling; new warehouse on 6th St



FIGURE 4.2-6



FIGURE 4.2-7

Tom Dodson & Associates
Environmental Consultants

Intersection of Victoria and 3rd St looking east



FIGURE 4.2-8

Tom Dodson & Associates
Environmental Consultants

Victoria, south of 6th St, looking north



FIGURE 4.2-9



FIGURE 4.2-10



FIGURE 4.2-11



FIGURE 4.2-12



FIGURE 4.2-13



FIGURE 4.2-14

4.3 AGRICULTURE AND FORESTRY RESOURCES

4.3.1 Introduction

This subchapter evaluates the environmental impacts to agriculture and forestry resources from implementation of the Airport Gateway Specific Plan (AGSP). The following topics address whether the proposed Project would convert farmland that is considered Prime, Unique or of Statewide Importance; conflict with agricultural use or a Williamson Act contract, rezone or lose forestry or timberlands, or otherwise convert farmland and timberlands to non-forest land or non-agricultural use. The purpose of the agriculture and forestry resources component of this Draft Environmental Impact Report (DEIR) is to identify and provide analysis and assessment of the potential for farmlands and timberlands to exist within the AGSP Planning Area or the sensitivity for such resources to be encountered at a future specific project site so that they can be incorporated into the planning process for future infrastructure and entitlement compliance considerations.

These issues will be discussed below as set in the following framework:

- 4.3.1 Introduction
- 4.3.2 Regulatory Setting
- 4.3.3 Existing Conditions
- 4.3.4 Thresholds of Significance
- 4.3.5 Potential Impacts
- 4.3.6 Cumulative Impacts
- 4.3.7 Unavoidable Adverse Impacts

References utilized for this section include:

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- US Dept. of Agriculture, Natural Resources Conservation Services Web Soil Survey, accessed May 8, 2020 for the Plan area.
- The Planning Center, July 25, 2005. *Draft, San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report, SCH #2004111132*
- California Department of Conservation Important Farmland Finder, <https://maps.conservation.ca.gov/dlrp/ciftimeseries/> as accessed 5/8/2020.

No comments pertaining to agricultural or forestry resources were received at the Scoping Meeting or in response to the Notice of Preparation.

4.3.2 Regulatory Setting

The agricultural and forestry resources component of this DEIR is prepared to address implementation of the AGSP if and when it is approved in the future. The location of potential projects range between well-defined to relatively uncertain at this time, but the various components will occur in commercial, industrial, and residential areas in the communities within the planning area.

The impact assessment presented below focuses on physical changes to the landscape within the project area and any potential adverse impacts these changes may have on any farmland or forest resources that may exist within the planning area. For purposes of evaluating the impacts

in this subchapter, it is assumed that over the next 20 years the whole AGSP planning area will be developed and implemented as proposed and described in the Project Description of this document.

This section discusses the potential impacts on Agriculture and Forestry Resources that may be associated with the implementation of the AGSP. However, much of the AGSP Plan Area has been designated for residential, commercial, and industrial uses through their respective General Plans. The General Plans for each of the cities have already evaluated the potential loss of agriculture and timber resources in the Plan area through previous environmental studies.

State

Farmland Mapping and Monitoring Program (FMMP)

The California Department of Conservation (DOC), administers the FMMP. The FMMP monitors the conversion of the State's farmland to and from agricultural use. The map series identifies eight classifications and uses a minimum mapping unit size of 10 acres. The FMMP also produces a biannual report on the amount of land converted from agricultural to non-agricultural use. The FMMP maintains an inventory of State agricultural land and is supposed to update its "Important Farmland Series Maps" every two years; the latest year update was 2016. Important farmlands are divided into the following five categories based on their suitability for agriculture:

Prime Farmland. Prime Farmland is land with the best combination of physical and chemical features able to sustain long-term agricultural production. This land has soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date (2016).

Farmland of Statewide Importance. Farmland of Statewide Importance is similar to prime farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date (2016).

Unique Farmland. Unique Farmland consists of lesser quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land has even lesser quality soils and produces the state's leading agricultural crops. This land is usually irrigated, but also includes non-irrigated orchards and vineyards. Land must have been cropped at some time during the four years prior to the mapping date (2016).

Farmland of Local Importance. Farmland of Local Importance includes areas of soil that meet all the characteristics of Prime, Statewide or Unique and which are not irrigated. This category includes farmlands not covered by above categories but are of high economic importance to the community. These farmlands include dryland grains of wheat, barley, oats, and dryland pasture. This land that is important to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

Grazing Land. Grazing Land is land on which the existing vegetation is suited to the grazing of livestock.

Other mapped categories include:

Urban and Built-up Lands. Urban and Built-up land is occupied by structures with a building density of at least 1 unit per 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, and institutional facilities; as well as cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control facilities.

Other Lands. Land under this category does not meet the criteria of any other mapping category. Common examples include low density rural developments, chaparral, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry, or aquaculture facilities, strip mines, borrow pits, and water bodies smaller than 40 acres. Vacant and non-agricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as other land.

California Land Conservation Act (Williamson Act)

The Williamson Act (Cal. Govt. Code, §51200 et seq.) allows county governments to enter into contracts with private landowners who agree to restrict parcels of land to agricultural uses or uses compatible with agriculture for at least ten years. In return, landowners receive property tax assessments that are much lower than normal because they are based upon income derived from farming and open space uses as opposed to full market value of the property.

California Government Code Section 51250 sets forth that a breach of contract has occurred if: (1) a commercial, industrial, or residential building is constructed that is not allowed by Williamson Act, local uniform rules or ordinances consistent with the provisions of the Williamson Act, and that is not related to an agricultural use or compatible use, and (2) the total area of all of the building or buildings causing the breach exceeds 2,500 square feet. State-owned buildings, however, are exempt from these specific breach of contract provisions (Cal. Govt. Code, §51250(s)(1)(C)).

Local

City of San Bernardino General Plan

The City of San Bernardino General Plan does not address policies regarding agriculture and forestry resources.

City of Highland General Plan

The following General Plan policies addressing agricultural and/or forestry resources are applicable to the project:

Conservation and Open Space Element: Goal 5.2

Achieve an orderly transition from agricultural uses to low-density residential/equestrian uses.

Conservation and Open Space Element: Policy 1

Ensure that farmlands converted to other uses are consistent with the East Highlands Ranch Planned Development.

Conservation and Open Space Element: Policy 2

Incorporate appropriate land use transitions and buffering techniques into new development.

Conservation and Open Space Element: Policy 3

Incorporate appropriate edge treatment between the agricultural/equestrian uses and higher density residential uses through landscaped buffers, greenbelts, view fencing and parkways.

Conservation and Open Space Element: Policy 4

Preserve visual reminders of the City’s agricultural heritage in park design, buffer zones, public use areas and landscape plans.

4.3.3 Environmental Setting: Agricultural and Forestry Resources

4.3.3.1 Soils in the Plan Area

Soils in the Plan area are identified as a mix of Tujunga gravelly loamy sand, Tujunga loamy sand, and Hanford coarse sandy loam. Soils within City Creek Bypass channel are primarily classified as Psamments, Fluvents and frequently flooded soils. Table 4.3-1 identifies the various soil types on site as identified by the USDA and their importance to agriculture as identified by the Natural Resources Conservation Service (NRCS).

**Table 4.3-1
 SOILS IN AGSP AREA**

Soil Map Symbol	Soil Unit	Approximate Acres in the AGSP Plan Area	Percent of Soils within the AGSP Plan Area	NRCS Classification
TvC	Tujunga gravelly loamy sand, 0 to 9 percent slopes	372.9	59.8%	Not prime farmland
TuB	Tujunga loamy sand, 0 to 5 percent slopes	85.6	13.7%	Farmland of statewide importance
SpC	Soboba stony loamy sand, 2 to 9 percent slopes	55.5	8.9%	Not prime farmland
HaC	Hanford coarse sandy loam, 2 to 9 percent slopes	50.3	8.1%	Prime farmland if irrigated
Ps	Psamments, Fluvents and Frequently flooded soils	45.2	7.3%	Not prime farmland
SoC	Soboba gravelly loamy sand, 0 to 9 percent slopes	7.4	1.2%	Not prime farmland
GS	Grangeville fine sandy loam, saline-alkali	5.8	0.9%	Farmland of statewide importance
HbA	Hanford sandy loam, 0 to 2 percent slopes	0.9	0.1%	Prime farmland if irrigated

4.3.3.2 Zoning and Land Use in the Plan Area

According to the City of Highland’s General Plan, much of the City of Highland was once devoted to agriculture, primarily citrus production. As the City has urbanized over the past decades, there has been a higher demand for housing and commercial uses, and less demand for agriculture. The City of Highland General Plan has identified approximately 550 acres as “Agriculture/ Equestrian” uses in the eastern portion of the City.

Similarly, the City of San Bernardino’s main agriculture production historically was also citrus. Following World War II, what is now known as the San Bernardino International Airport, was once a thriving military installation (Norton Air Force Base) that supported businesses and the need for more housing. Additionally, with the opening of the Kaiser Steel plant in Fontana in the early 1940s, the need for housing within the community also became more important than agriculture.

The entire AGSP Plan Area is generally zoned by the cities of San Bernardino and Highland for commercial, industrial, planned development and medium-density residential land uses. However, existing land uses in the Plan Area primarily consist of undeveloped land, single- and multi-family residential, and small business/industrial uses. Based on field surveys of the plan area over the past two years, there are currently no farms or active farming activities in the AGSP Plan area.

4.3.3.3 Groundwater Wells

According to the East Valley Water District, there are four groundwater wells in the Plan Area.

4.3.3.4 Land Tenure Status

Land tenure status refers to historical pattern of land uses as depicted by the existing land uses within a project area. The AGSP plan area is located in an area transitioning to higher intensity suburban and urban uses, as envisioned in the General Plans of the cities of Highland and San Bernardino. Land uses within the plan area consist of a mix of older single-family residential, medium density residential, undeveloped open space, light industrial, and minor amounts of commercial. No large-scale agricultural operations, such as dairies or irrigated agriculture, currently occur in the vicinity of the AGSP project area or have occurred within the area over the past several decades.

4.3.3.5 Forest and Timberland Resources

The site is not located in an area with forest or timberland resources, as the hot, dry summers and lack of sufficient water make it unsuitable for forest and timberland uses.

4.3.4 Thresholds of Significance

The California Environmental Quality Act (CEQA) CEQA Guidelines, Appendix G, a project would normally have a significant effect on the environment if the project would:

- AGF-1 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?
- AGF-2 Conflict with existing zoning for agricultural use or a Williamson Act contract?
- AGF-3 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))?
- AGF-4 Result in the loss of forest land or conversion of forest land to non-forest use?
- AGF-5 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?

This section of Subchapter 4.3 evaluates the level of adverse impact to any site agricultural and forest/timberland resources that is forecast to occur if the project is implemented as proposed. The level of significance is evaluated through the evaluation of the significance of any site

identified agricultural resources and forest/timberland resources and the degree of change that will result from implementing the proposed project.

4.3.5 Potential Impacts

AGF-1 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?

A search of the California Department of Conservation, Farmland Mapping and Monitoring Program website <https://www.conservation.ca.gov/dlrp/fmmp> showed that there is no Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance in the project area. A portion of the westernmost area of the Plan area is classified as Other Land. A field survey of the project area land uses confirmed that there is no acreage currently being used to support farming or other agricultural activities. Therefore, implementation of the ASGP has no potential to result in the conversion of farmland.

Neither of the General Plans for the City of Highland and City of San Bernardino designate any of the Plan area for agricultural use.

Mitigation Measures: None Required

Level of Significance: No Impact

AGF-2 Conflict with existing zoning for agricultural use or a Williamson Act contract?

The project site is not now nor has it been included in a County Williamson Act contract or an Agricultural Preserve. Further, as noted in the previous section, none of the project area is currently dedicated to an existing agricultural use. Therefore, the proposed project will not cause a significant direct impact or conflict with any Williamson Act acreage or existing agricultural use. As indicated, land in the project area is not currently being farmed and the land use designations/classifications (General Plans and Zoning) support higher intensity urban/suburban uses, not commercial farming. Also, the current high value of the land and the low value of return on the property when used for dry land farming makes the project area unsuitable for initiating agricultural use in the future.

Mitigation Measures: None Required

Level of Significance: No Impact

AGF-3 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))?

Forest land is defined in Public Resources Code Section 12220(g) as "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." No timberland or lands zoned Timberland Production, as defined above, occur within ASGP plan area. The Project is not located in an area zoned for forest land or timber production. Therefore, the Project will not

impact the land's ability to support 10 percent native tree cover of any species; thus, no forest lands will be reclassified as non-forest lands under Public Resources Code Section 12220(g).

Additionally, the ASGP plan area is located on the lower portion of an alluvial fan emanating from the San Bernardino Mountains. The overlying land uses are largely urban/suburban and there are no forest lands designated within any of the jurisdictions that control land use within the ASGP plan area. This was verified during field surveys of the project area in 2020-21.

Mitigation Measures: None Required

Level of Significance: No Impact

AGF-4 Result in the loss of forest land or conversion of forest land to non-forest use?

As described in the preceding evaluation, the proposed project has no potential to cause changes in the existing environment that could result in conversion of farmland to non-agricultural uses or forest land to non-forest use. No such agricultural or forest land uses occur in the vicinity of the project area and the proposed changes in land use have no potential to cause conversion of actively farmed land to non-agricultural uses or forested lands to non-forest use. The land use designations and the value of the land minimize the potential for future dry farming of this project area.

Mitigation Measures: None Required

Level of Significance: No Impact

AGF-5 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?

There is no land designated or being used for farmland, forest land or timberland in the AGSP project area or in the vicinity of the Specific Plan area. Therefore, there are no features in the existing environment that would conflict with or result in conversion of farmland or forest land to non-agricultural or non-forest use.

Mitigation Measures: None Required

Level of Significance: No Impact

4.3.6 Cumulative Impacts

Level of Significance: No Impact

While cumulative development within the region may result in cumulatively significant impacts related to loss of and impacts to agricultural and forestry resources, the cumulative analysis of each Agriculture and Forestry Resources issue evaluated in Subchapter 4.3 of the DEIR determined that the proposed project would not result in a considerable contribution to cumulative impacts to agricultural and forestry resources within the Region. There are no agriculture or forestry resources located within the AGSP's area of potential impact. Therefore, the proposed AGSP has a less than significant potential to result in a cumulatively considerable contribution to any agricultural and forestry resources impacts.

4.3.7 Unavoidable Adverse Impacts

As determined in the preceding evaluation, no significant and unavoidable impacts to agricultural or forestry resources will occur as a result of the proposed project.

4.4 AIR QUALITY

4.4.1 Introduction

This Subchapter will evaluate the environmental impacts to the issue area of air quality from implementation of the proposed Airport Gateway Specific Plan (AGSP). The Project area covers approximately 678.13 acres. The Specific Plan area includes parcels in both the City of Highland (484.7 acres) and the City of San Bernardino (193.43 acres). The existing uses within the Specific Plan area include single-family and multi-family residential, open space, small-lot commercial, educational facilities, and industrial uses. Vacant parcels make up approximately about one third of the overall acreage within the Specific Plan area. The Airport Gateway Specific Plan (AGSP) would the Specific Plan area to develop approximately 9.27 million square feet of Mixed Use Business Park, including many uses that may remain within the planning area.

This document is a full-scope Draft Environmental Impact Report (DEIR) for the above-described project and all of the standard issues related to Air Quality identified in Appendix G of the CEQA Guidelines. Analysis of these issues will determine whether implementation of the AGSP would conflict with or obstruct implementation of the applicable air quality plan; result in a cumulatively considerable net increase of any criteria pollutant for which the South Coast Air Basin is non-attainment under an applicable federal or state ambient air quality standard; expose sensitive receptors to substantial pollutant concentrations; or result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The *Airport Gateway Specific Plan Air Quality Impact Analysis* (AQIA) dated January 15, 2021 was prepared by Urban Crossroads to evaluate the potential impacts to air quality associated with construction and operation of the proposed AGSP over an assumed 20+ year planning horizon. A copy of the AQIA is provided as Appendix 1 of Volume 2 of this DEIR. Much of the information provided in the following sections is abstracted directly from this technical report with minor edits.

These issues pertaining to air quality will be discussed below as set in the following framework:

- 4.4.1 Introduction
- 4.4.2 Regulatory Setting
- 4.4.3 Existing Conditions: Air Quality
- 4.4.4 Thresholds of Significance
- 4.4.5 Methodology
- 4.4.6 Air Quality Impact Analysis Data
- 4.4.7 Mitigation Measures
- 4.4.8 Cumulative Impacts
- 4.4.9 Significant and Unavoidable Impacts

The following comments from the public regarding air quality were received during the NOP comment period or at the Scoping Meeting:

NOP Comment Letter #2 (SCAQMD): The Comment Letter suggests that the Lead Agency utilize the South Coast Air Quality Management District (SCAQMD) CEQA Air Quality Handbook as guidance in the preparation of the air quality and greenhouse gas analysis.

Response: The SCAQMD CEQA Air Quality Handbook was consulted in drafting the technical appendices (Appendices 1 and 6 to Volume 2 of this DPEIR address Air Quality and Greenhouse

Gas respectively) and in crafting the environmental analyses for the Air Quality and Greenhouse Gas (GHG) Subchapters (4.4 and 4.9).

NOP Comment Letter #2 (SCAQMD): The Comment Letter details the types of air quality and greenhouse gas impacts that should be analyzed in the EIR, including the types of emissions that should be quantified in the EIR, including analyzing overlapping operational and construction generated emissions, and performing a mobile source health risk assessment.

Response: The emissions were calculated and compared against the significance thresholds referenced in the comment letter. Overlapping construction and operational emissions have not been quantified as suggested in the comment letter. This is because IVDA believes it would be speculative to craft a construction scenario in correlation with an operational scenario when no specific projects have been put forth under the AGSP at this time. Essentially, in crafting such a combined scenario, there would be no correlation with reality when, if approved, specific development under the AGSP is proposed. Future developers and operators of facilities within the AGSP would be required to perform project-specific Air Quality and Greenhouse Gas analyses that would determine whether a given project falls under the assumptions provided in the project description for construction and operations, and the assumptions provided under the Air Quality and Greenhouse Gas (GHG) Subchapters (4.4 and 4.9). Second tier environmental documentation would be required where a future project under the AGSP does not fall under these assumptions.

*A mobile source health risk assessment, similar to the discussion above regarding analyzing construction and operational emissions concurrently, has not been conducted as part of this DEIR. This is, again, because in crafting a future mobile source health risk assessment (HRA), a scenario would need to be crafted that would have no bearing on reality, if approved, specific development under the AGSP is proposed. For instance, the HRA would require assumptions as to the specific locations of sensitive receptors in relation to mobile sources within the AGSP Planning Area. While it is assumed that residences north of 6th Street will remain in place, it would be speculative to determine where residences would remain within the AGSP Planning Area at a given moment in time as future development is proposed under the AGSP. Thus, the Air Quality Impact Analysis under Subchapter 4.4 relies on the implementation of MM **AQ-15**, which would require that, during each City's review process for individual project applications within the Specific Plan, projects that generate more than 100 diesel truck trips per day or projects that generate other toxic air contaminants (TACs) within a 100 foot buffer of the nearest sensitive receptor, shall submit a health risk assessment (HRA) to the City prior to future discretionary project approval.*

NOP Comment Letter #2 (SCAQMD): The Comment Letter specifies that the EIR should outline any permits that would be required to be obtained by the Lead Agency or Developers as a result of project operations.

*Response: The AGSP does not, at this time, propose any specific development within the Planning Area. As such, it would be speculative to determine the types of permits that would be required by future projects proposed under the AGSP, as the specific operational parameters have not yet been identified. Where future projects under the AGSP require permits from SCAQMD to operate specific types of equipment and processes, the developers/operators will be required to obtain such permits; this is enforced via MM **AQ-43**.*

NOP Comment Letter #2 (SCAQMD): SCAQMD staff notes concern about potential public health impacts of siting warehouses within close proximity to sensitive land uses, especially in communities already affected by existing warehouse and truck activities; and, the Comment Letter provides information and sites sources indicating that the area surrounding the project has an estimated cancer risk of over 426 in one million, and SCAQMD staff notes concern that the proposed AGSP could result in an even greater risk to the community.

Response: The comment is noted. An objective of the proposed project is to create a transition area between the Airport and residential land uses. Furthermore, as stated previously, MM AQ-15, would the preparation of an health risk assessment (HRA) prior to future discretionary project approval for projects over the identified threshold. The IVDA believes that this is sufficient to ensure that public health impacts are identified, and mitigation is enforced (refer to MM AQ-15 under Subchapter 4.4) to reduce potential cancer and non-cancer risks to an acceptable level.

NOP Comment Letter #2 (SCAQMD): The Comment Letter outlines the need for mitigating air quality and greenhouse gas emissions, and recommends several specific mitigation measures that should be considered to minimize operational emissions generated by the AGSP, including:

- Require zero-emissions (ZE) or near-zero emission (NZE) on-road haul trucks;

Response: MM AQ-11 requires the use of ZE or NZE trucks, if and when feasible, and establishes a minimum requirement of utilization of 2010 or newer haul trucks for future development. The MM also sets the following parameters: Once required to comply with State law, or otherwise comply with SCAQMD Rules, ZE and NZE on-road haul trucks shall be mandatory for use by future AGSP Development; until this point, the use of ZE and NZE on-road haul trucks shall be required once such vehicles are readily available, and comparable in cost (within a 20% margin) to new non-ZE/NZE on-road haul trucks. The IVDA has utilized these parameters to ensure that future development within the AGSP is able to meet State and Local regulations pertaining to air quality, while also ensuring that the mitigation is not constrained to the point at which development under the mitigation constraints becomes prohibitive to the development itself.

- Limit the daily number of trucks allowed at the Proposed Project to levels analyzed in the Final CEQA document;

Response: The daily number of trucks allowed under the AGSP sets a threshold under which future site-specific second tier CEQA evaluation must fall under, or otherwise the site-specific second tier evaluation must evaluate the impacts from the increased daily trips beyond that which has been identified under this analysis (refer to Subchapter 4.18, Transportation). Future site-specific development must be approved by the City within which the development is proposed, and the decision-making body will determine whether proposals that generate greater daily truck trips than analyzed herein are acceptable under the respective jurisdiction's Municipal Codes, General Plans, and other regulations therein.

- Provide electric vehicle (EV) charging stations or at a minimum, provide the electrical infrastructure;

Response: MM AQ-17 requires the minimum number of automobile electric vehicle (EV) charging stations required by the California Code of Regulations (CCR) Title 24 to be provided, and electrical infrastructure sufficiently sized to accommodate the potential installation of additional auto and truck EV charging stations shall be provided. Additionally, MM AQ-17 requires final

*Project designs to provide for installation of conduit in tractor trailer parking areas for the purpose of accommodating potential installation of EV truck charging stations. MM **AQ-35** requires coordination with Edison to install EV Charging Stations incrementally over the life of the project.*

- Maximize use of solar energy by installing solar energy arrays;

*Response: MM **GHG-1** requires the construction of future buildings over 50,000 SF in size to be solar or other clean energy technology compatible, and clean energy ready. Each AGSP Development shall prepare new structures greater than to provide either a solar photovoltaic panel system or other clean energy systems within 2 years of commencing operations.*

- Use light colored paving and roofing materials;

*Response: MM **AQ-34** requires the use of light-colored paving and roofing materials.*

- Utilize only Energy Star heating, cooling, and lighting devices, and appliances;

*Response: MM **AQ-40** requires that future AGSP Development utilize only Energy Star heating, cooling, and lighting devices, and appliances.*

- Use of water-based or low VOC cleaning products that go beyond the requirements of South Coast AQMD Rule 1113;

*Response: MMs **AQ-2**, **AQ-26**, and **AQ-34** pertain to VOC mitigation. MM **AQ-34** requires future AGSP Developments to utilize water-based or low VOC cleaning products. MM **AQ-26** requires future AGSP Developments to comply with South Coast Air Quality Management District Rule 1113 – Architectural Coatings, and MM **AQ-2**, requires future AGSP Developments to utilize “Super-Compliant” low VOC paints which have been reformulated to exceed the regulatory VOC limits put forth by SCAQMD’s Rule 1113. Super-Compliant low VOC paints shall be no more than 10g/L of VOC. Alternatively, Future AGSP Development may utilize building materials that do not require the use of architectural coatings. These measure apply to all future projects under the AGSP.*

- Clearly mark truck routes with trailblazer signs, so that trucks will not travel next to or near sensitive land uses;

*Response: MM **AQ-36** requires trucks to utilize truck routes identified in the Airport Gateway Specific Plan. In order to enforce this requirement, truck routes will be clearly marked with trailblazer signs, so that trucks will not enter residential areas.*

- Design the Proposed Project such that truck entrances and exits are not facing sensitive receptors;

*Response: MM **HAZ-1** would require all routine large truck access to industrial projects constructed between 5th and 6th Streets shall be from 5th Street, which would minimize potential conflicts with residential uses along 6th Street. This is the primary location at which sensitive receptors would be located within the AGSP upon build-out of the Planning Area.*

- Design the Proposed Project such that any check-in point for trucks is inside the Proposed Project site to ensure that there are no trucks queuing outside.

*Response: MM **AQ-3** would require that diesel engines are not allowed to idle in excess of 5 minutes, which would minimize the potential for queuing outside of a given project site. Furthermore, MM **AQ-41** would require future development under the AGSP to be designed to require internal check-in points for trucks to minimize queuing outside of the project site.*

- Design the Proposed Project to ensure that truck traffic inside the Proposed Project site is as far away as feasible from sensitive receptors; and,

*Response: MM **HAZ-1** would require that 6th Street mostly be designated for local deliveries only. Specific design guidelines for new industrial buildings fronting on 6th Street shall incorporate buffers to reduce potential conflicts between the industrial uses that are south of 6th and residential uses north of this roadway. All routine large truck access to industrial projects constructed between 5th and 6th Streets shall be from 5th Street. Buffering techniques along 6th Street may include the following: dense landscape buffering; use of landscaped berms and short walls with articulation; and other designs acceptable to the city with land use jurisdiction.*

- Restrict overnight truck parking in sensitive land uses by providing overnight truck parking inside the Proposed Project site.

*Response: On street parking is prohibited within much of the AGSP Planning Area already. This is the case along Waterman Avenue, Tippecanoe Avenue, Victoria Avenue, Central Avenue. MM **TRAN-6** requires future projects under the AGSP to incorporate truck parking lots within or near the AGSP Planning Area to allow for truck queuing. Additionally, this MM prohibits on-street truck parking along 6th Street, which would ensure that sensitive land uses are not impacted by truck parking and idling.*

NOP Comment Letter #2 (SCAQMD): The Comment Letter outlines Rule 2305, and its applicability to the proposed project.

Response: Please refer to the discussions under Subchapter 4.4, Air Quality under Subsection 4.4.2.3, Regional Regulations, Rule 2305 and under the analysis provided under issue AQ-1, under Subsection 4.4.6.3, Potential Impacts. This issue is discussed and analyzed therein.

NOP Comment Letter #5 PCWJ: The Comment Letter suggests that IVDA create electrification standards for future uses under the AGSP, and also conveys interest in the AGSP creating a Carbon Neutral Plan.

*Response: Refer to Subchapter 4.4, Air Quality. MM **AQ-11** would require the use of electric or alternative fueled construction equipment where technically feasible and/or commercially available; MM **AQ-12** requires the use of use zero emission (ZE) or near-zero emissions (NZE) trucks, if and when feasible; at a minimum, future development shall be required to use 2010 and newer haul trucks (e.g., including material delivery trucks and soil import/export, and trucks required for operation). Once required to comply with State law, or otherwise comply with SCAQMD Rules, ZE and NZE on-road haul trucks shall be mandatory for use by future AGSP Development; until this point, the use of ZE and NZE on-road haul trucks shall be required once such vehicles are readily available, and comparable in cost (within a 20% margin) to non-ZE/NZE on-road haul trucks. MM **AQ-18** requires the minimum number of EV charging stations required by the California Code of Regulations (CCR) Title 24 shall be provided and for the development to include electrical infrastructure sufficiently sized to accommodate the potential installation of additional auto and truck EV charging stations. MM **AQ-19** requires final Project designs to*

*provide for installation of conduit in tractor trailer parking areas for the purpose of accommodating potential installation of EV truck charging stations. MM **AQ-22** requires all on-site outdoor cargo-handling equipment (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) and all on-site indoor forklifts will be powered by electricity. MM **AQ-37** requires landscaping contractor(s) that uses electric landscaping equipment, if contactors with electric equipment are feasible to retain within the immediate project area. MM **AQ-28** requires electric or alternatively fueled sweepers. Under Subchapter 4.9, Greenhouse Gas, MM **GHG-1**, requires future buildings over 50,000 SF to be solar or other clean energy technology compatible, and clean energy ready, and new structures to provide either a solar photovoltaic panel system or other clean energy systems within 2 years of commencing operations. Additionally, MM **GHG-2** requires that, for future AGSP developments with more than 10 employees or more than 10 company vehicles, a GHG Emissions Reduction Plan (ERP) shall be submitted to the pertinent City for review and approval. This ERP can include energy source reductions, additional EV charging stations, use of electric vehicles, etc.*

Based on the above, while the AGSP does not require full “electrification” of future AGSP developments, many aspects of each future development under the AGSP will be required to be electric. In regards to a carbon neutral plan, this concept has been reviewed by the AGSP Project Team, in particular by the Cities of San Bernardino and Highland, and at this time, a plan of this type has been deemed not feasible given that no specific future development under the AGSP has been proposed, and that a plan of this type would not be feasible to impose as a blanket measure for all future development under the AGSP.

NOP Comment Letter #7 Teamsters: The Comment Letter recommends that the DEIR contain the following: Mitigation such as, fence line testing of greenhouse gas emissions; energy consumption measuring, reporting, and requirements for renewable energy technology, such as solar panels; flood mitigation; requirements for electrification of fleets associated with vehicle-focused industrial, manufacturing, and logistical uses; a tree planting program to ensure sufficient shade and avoiding creation of intense heat sinks; and, other best practices that go above and beyond minimum requirements; A study of specific impacts of different types of warehouse and logistical uses, and in particular the different types of vehicles (freight, trucks, commercial vans, passenger vehicles) to be used, and their impact on emissions.

*Response: Please refer to the response to NOP Comment Letter #5 PCWJ, above, as the issue of renewable energy technology and electrification of fleets are fully addressed therein. Subchapter 4.4, Air Quality, identifies MM **AQ-39**, which would require future development under the AGSP to maximize the planting of drought resistant trees in landscaping and parking lots and when/if recycled water becomes available in the future, landscaping shall be supported by this alternative source of water supply. While a tree planting program has not been considered, IVDA believes that this measure is sufficient to ensure that the area does not experience intense heat sinks and maximizes the planting of, appropriately given the sources of water available, drought tolerant trees. Given the buffering that would be created through MM **HAZ-1**, discussed above under NOP Comment Letter #2 (SCAQMD), the creation of fence line testing is not anticipated to be necessary to protect the community from the health effects of AGSP generated emissions. This is further bolstered by MM **AQ-15**, which requires that, during each City’s review process for individual project applications within the Specific Plan, projects that generate more than 100 diesel truck trips per day or projects that generate other toxic air contaminants (TACs) within a 100-foot buffer of the nearest sensitive receptor, shall submit a health risk assessment (HRA) to the City prior to future discretionary project approval. This measure stipulates that if the HRA shows that the incremental cancer risk of an individual Project exceeds 10 in 1 million or the appropriate*

noncancer hazard index exceeds 1.0, the individual Project's will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Thus, IVDA believes that this measure would ensure that the necessary minimization of health risk would be ensured through the implementation of this measure, ultimately serving as a sort of buffering measure in and of itself, as it would prevent future projects from emitting and contributing to cancer risk or noncancer health risk over the identified thresholds.

The Air Quality, Energy, and GHG Impact Analyses provided as Appendices 1, 4 and 6 of Volume 2 to this DEIR each assess the impacts of an intensive mix of uses under the AGSP. The mix of uses and assumptions thereof are provided in Table 3-3 in Chapter 3, the Project Description. Given that many of the mitigation measures that have been provided to reduce mobile source emissions were not attributed to the emissions modeling calculations, the emissions reduction from implementation of the extensive air quality emissions reduction and GHG emissions reduction measures found in Subchapters 4.4 and 4.9 would ensure emissions reductions that go beyond the minimum requirements. The Air Quality, Energy, and GHG Impact Analyses provided as Appendices 1, 4, and 6 of Volume 2 to this DEIR serve as the technical reports providing the estimated emissions generated from mobile sources listed in this comment on the environment as a result of implementation of the AGSP.

Scoping Meeting Speaker #1 Andrea: The speaker suggests that fence line NOx, GHG, DPM tests between industrial and residential uses should be considered, as should monitoring the area for air quality. They suggest a mitigation measure to enforce this concept.

Response: Please refer to the response to NOP Comment Letter #7 Teamsters, above, as the issue of feasibility of fence line testing is fully addressed therein.

Scoping Meeting Speaker #1 Andrea: The speaker suggests that the Project Team communicate the AQ emissions and GHG generated to community. The speaker suggests reporting requirements for emissions / energy use, and that those reports should be made available to the community.

Response: Please refer to the response to NOP Comment Letter #7 Teamsters, above, as the issue of feasibility of fence line testing and reporting is addressed therein.

Scoping Meeting Speaker #1 Andrea: The speaker asks, would there be recommendations for buffers between commercial / industrial and industrial / commercial between sensitive uses?

- The speaker asks would there be buffering mitigation between uses that would be incompatible?
- The speaker recommends additional policies (not specific) should be considered for buffering.
- The speaker doesn't want warehouses next to residential uses.

*Response: As stated under the response to SCQAMD above, MM **HAZ-1** would require that 6th Street mostly be designated for local truck deliveries only. Specific design guidelines for new industrial buildings backing on 6th Street shall incorporate buffers to reduce potential conflicts between the industrial uses that are south of 6th and permanent residential uses north of this roadway. All routine large truck access to industrial projects constructed between 5th and 6th Streets shall be from 5th Street. Buffering techniques along 6th Street may include the following:*

dense landscape buffering; use of landscaped berms; short walls with articulation; and other designs acceptable to the city with land use jurisdiction.

*It appears that one of the main intents behind the buffering concern is the potential health risks associated with developing industrial uses in close proximity to sensitive receptors/sensitive uses. As such, please refer to the mitigation requirement, MM **AQ-15** requires that, during each City's review process for individual project applications within the Specific Plan, projects that generate more than 100 diesel truck trips per day or projects that generate other toxic air contaminants (TACs) within a 100-foot buffer of the nearest sensitive receptor, shall submit a health risk assessment (HRA) to the City prior to future discretionary project approval. This measure stipulates that if the HRA shows that the incremental cancer risk of an individual Project exceeds 10 in 1 million or the appropriate noncancer hazard index exceeds 1.0, the individual Project's will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Thus, IVDA believes that this measure would ensure that the necessary minimization of health risk would be ensured through the implementation of this measure, ultimately serving as a sort of buffering measure in and of itself, as it would prevent future projects from emitting and contributing to cancer risk or noncancer health risk over the identified thresholds.*

Scoping Meeting Speaker #1 Andrea: The speaker suggests that there should be a requirement for electrification of the area, cars, trucks, buildings. Would there be an electrification plan? The speaker suggests a similar plan that considered 25% electric by 2030, 50% by 2035, etc.

Response: Please refer to the response to NOP Comment Letter #5 PCWJ, above, as the issue of electrification is fully addressed therein.

Scoping Meeting Speaker #1 Andrea: The speaker suggests tree planting programs.

Response: Please refer to the response to NOP Comment Letter #7 Teamsters, above, as the issue of tree planting programs are fully addressed therein.

Scoping Meeting Speaker #2 Stephen: The speaker asks, what are the regulations that pertain to backup generators to prevent pollution?

Response: According to SCAQMD "All internal combustion engines (ICEs) greater than 50 brake horsepower (bhp) and gas turbines greater than 2,975,000 British thermal units (Btu) per hour are required to obtain a permit to construct from the South Coast AQMD prior to installation of the engines at a site. Most of the existing emergency backup generators use diesel as fuel. Emissions of Nitrogen Oxides (NOx) from diesel-fired emergency engines are 200 to 600 times greater, per unit of electricity produced, than new or controlled existing central power plants fired on natural gas. Diesel-fired engines also produce significantly greater amounts of fine particulates and toxics emissions compared to natural gas fired equipment. NOx is a primary component of smog. Engines operated on fuels other than diesel, such as natural gas, ethanol, propane or with dual fuels (diesel only for initial start-up and then primarily natural gas) are much cleaner and produce significantly less air pollution for the same amount of energy produced."¹ Thus, depending on the type of generator utilized, utilizing backup generators over a period of years would potentially increase air quality/greenhouse emissions.

¹ <http://www.aqmd.gov/home/permits/emergency-generators#Fact2>

Scoping Meeting Speaker #6 Mauricio: The speaker lists drayage trucks, diesel trucks, and concerns due to the potential emissions, and asks would there be buffer zones? The speaker asks what would the buffer zone be?

*Response: Please refer to the response under Scoping Meeting Speaker #1 Andrea, above, as this comment addresses the concern for buffering and health risks. The concerns raised regarding drayage trucks, diesel trucks and emissions generated thereof, the discussion regarding health risk above would essentially ensure that measures are put in place to reduce DPM and other TACs. Though MM **AQ-15** does not specifically limit drayage and diesel trucks, effectively the health risks generated by the use of such vehicles would be required to be reduced. Furthermore, MM **AQ-13** and **AQ-15** require localized significance thresholds, which are used to determine emissions impacts on proximal sensitive receptors, would be required, further providing decisionmakers with the necessary data to determine whether future site-specific projects should be approved under the AGSP. The MMs provided under Subchapters 4.4, Air Quality and 4.9, Greenhouse Gas, that apply to trucks and reducing emissions thereof, including buffering mitigations, include the following additional measures: MMs **AQ-12, AQ-16, AQ-18, AQ-19, AQ-22, AQ-25, AQ-28, AQ-36, AQ-41**, and **GHG-2**.*

Scoping Meeting Speaker #7 Yassi: The speaker asks: Would the document consider mobility initiatives or car sharing?

*Response: Yes, it does. MM **GHG-2** requires future AGSP developments with more than 10 employees or more than 10 company vehicles to submit a GHG Emissions Reduction Plan (ERP) to the pertinent City for review and approval. This ERP may include Implementation of Ride Sharing Program (Mobile Source); Maintenance of an onsite bicycle sharing program (Mobile Source); Establishment and support of a mass transit use program (including adjusting hours of operations to complement local mass transit operations, Mobile Source); and, Provision of secure bicycle parking facilities (Mobile Source). Furthermore, MM **TRAN-8** which addresses Vehicle Miles Traveled (VMT) reduction measures, including mobility initiatives, pedestrian network improvements, car-sharing programs, telecommuting, and enhanced bike parking.*

Scoping Meeting Speaker #7 Yassi: The speaker suggests that new buildings in the overlay should be electrified, including heat pumps, appliances, and the speaker suggests working with Edison an on assessment.

Response: Please refer to the response to NOP Comment Letter #5 PCWJ, above, as the issue of electrification is addressed therein.

Scoping Meeting Speaker #7 Yassi: The speaker suggests that Health Risk Assessments should be required. The speaker asks what health risks would be exacerbated by this development?

*Response: Please note that due to the speculative nature of the assumptions that would be required to generate a health risk assessment for a specific plan of this type, one has not been prepared. Given that there are no specific development proposals, and no specific locations in which development might occur in the near- and short- term, it would be speculative to determine the locations of sensitive receptors throughout the AGSP planning horizon. The response under Scoping Meeting Speaker #1 Andrea, above, addresses the concern for health risk analysis requirements, as in many cases, project specific HRAs would be required through the implementation of MM **AQ-15**.*

Scoping Meeting Speaker #7 Yassi: The speaker suggests mitigation: electrification, 1,000-foot buffers, and tree canopy.

Response: Please refer to the response under Scoping Meeting Speaker #1 Andrea, above, as this comment addresses the concern for buffering and health risks. Please refer to the response to NOP Comment Letter #7 Teamsters, above, as the issue of tree planting programs are fully addressed therein.

Scoping Meeting Speaker #10 Jo: The speaker is looking for mitigation of air issues.

*Response: Please refer to Subchapter 4.4, Air Quality. Mitigation measures **AQ-1** through **AQ-41**, in addition to MMs **GHG-1** and **GHG-2** address air and GHG emissions reductions.*

Scoping Meeting Speaker #10 Jo: The speaker asks: Is there a way to talk about the construction materials? Can construction materials benefit the community, using materials that sequester CO₂?

Response: To the IVDA's knowledge the known practice of utilizing construction materials that are reclaimed, or "green" is already a part of the Leadership in Energy and Environmental Design (LEED) certification process. LEED is a green building rating system administered by the US Green Building Council (USGBC). While IVDA considers future LEED certified development desirable, CEQA Guidelines Sections 15040(b), 15041, and 15091 collectively provide that mitigation measures must be within the responsibility and jurisdiction of the Lead Agency in order to be implemented. To require a certain portion of future development under the AGSP to seek or obtain LEED certification would, in the Decision Makers opinion, render meeting the objectives of the proposed Specific Plan, infeasible, and the Decision Makers do not have the authority to impose LEED certification on future private development on privately owned parcels. Thus, no feasible mitigation measures are available for the IVDA, City of San Bernardino, or City of Highland to enforce that have a proportional nexus to the project's level of impact, and a requirement for specific construction materials to be utilized for future AGSP Development has been determined to be infeasible.

The following reference documents were used in preparing this section of the DEIR.

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- Urban Crossroads, January 14, 2021. *Airport Gateway Specific Plan Air Quality Impact Analysis (AQIA)*
- 2020 SCAQMD Air Quality Management Plan (AQMP)

4.4.2 Regulatory Setting

4.4.2.1 Federal Regulations

The EPA is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for O₃, CO, NO_x, SO₂, PM₁₀, and Pb. The EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of California Air Resources Board (CARB).

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance. The CAA also mandates that states submit and implement SIPs for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O₃, NO₂, SO₂, PM₁₀, CO, PM_{2.5}, and Pb. The NAAQS were amended in July 1997 to include an additional standard for O₃ and to adopt a NAAQS for PM_{2.5}. Table 4.4-3 (presented below) provides the NAAQS within the SCAB.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas, and ultimate transition to electric vehicles. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and NO_x. NO_x is a collective term that includes all forms of NO_x which are emitted as byproducts of the combustion process.

4.4.2.2 California Regulations

CARB

CARB, which became part of the CalEPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. AB 2595 mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. CARB established the California Ambient Air Quality Standards (CAAQS) for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for SO₄, visibility, hydrogen sulfide (H₂S), and vinyl chloride (C₂H₃Cl). However, at this time, H₂S and C₂H₃Cl are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS.

Local air quality management districts, such as the SCAQMD, regulate air emissions from stationary sources, such as commercial and industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS.

Serious non-attainment areas are required to prepare Air Quality Management Plans (AQMP) that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;
- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g., motor vehicle use generated by residential and commercial development);

- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;
- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators;
- Sufficient control strategies to achieve a 5% or more annual reduction in emissions or 15% or more in a period of three years for ROGs, NO_x, CO and PM₁₀. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than 5% per year under certain circumstances.

Title 24 Energy Efficiency Standards and California Green Building Standards

CCR Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on January 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2019 California Green Building Code Standards that became effective January 1, 2020.

Local jurisdictions are permitted to adopt more stringent requirements, as state law provides methods for local enhancements. CALGreen recognizes that many jurisdictions have developed existing construction waste and demolition ordinances and defers to them as the ruling guidance, provided they establish a minimum 65% diversion requirement.

The code also provides exemptions for areas not served by construction waste and demolition recycling infrastructure. The State Building Code provides the minimum standard that buildings must meet in order to be certified for occupancy, which is generally enforced by the local building official.

Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas (GHG) emissions. The 2019 version of Title 24 was adopted by the California Energy Commission (CEC) and became effective on January 1, 2020.

The 2019 Title 24 standards will result in less energy use, thereby reducing air pollutant emissions associated with energy consumption in the SCAB and across the State of California. For example, the 2019 Title 24 standards require solar photovoltaic systems for new homes, establish requirements for newly constructed healthcare facilities, encourage demand responsive technologies for residential buildings, and update indoor and outdoor lighting requirements for nonresidential buildings.

The California Energy Commission (CEC) anticipates that single-family homes built with the 2019 standards will use approximately 7% less energy compared to the residential homes built under the 2016 standards. Additionally, after implementation of solar photovoltaic systems, homes built under the 2019 standards will use about 53% less energy than homes built under the 2016

standards. Nonresidential buildings (such as envisioned for the Project) will use approximately 30% less energy due to lighting upgrade requirements.

Because the Project will be constructed after January 1, 2019, the 2019 CALGreen standards are applicable to the Project and require, among other items:

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- Electric vehicle (EV) charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106.5.3.3 (5.106.5.3).
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, upright and glare ratings per Table 5.106.8 (5.106.8)
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
 - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
 - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
 - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
 - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets

shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).

- Outdoor portable water use in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient (MWELO), whichever is more stringent (5.304.1).
- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (5.303.1.1 and 5.303.1.2).
- Outdoor water use in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

4.4.2.3 Regional Regulations

Air Quality Management Plan (AQMP)

Currently, certain NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of AQMPs to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. AQMPs are required to be updated at regular intervals. The 2012 AQMP was adopted in early 2013. An updated 2016 AQMP was adopted by the SCAQMD Board in March 2017. The 2016 AQMD demonstrated the emissions reductions shown in Table 4.4-1 compared to the 2012 AQMP.

**Table 4.4-1
 COMPARISON OF EMISSIONS BY MAJOR SOURCE CATEGORY FROM 2012 AQMP**

Pollutant	Stationary Sources	Mobile Sources
VOC	-12%	-3%
NOx	-13%	-1%
SOx	-34%	-23%
PM2.5	-9%	-7%

*source 2016 AQMP

SCAQMD has initiated the development of the 2022 AQMP to address the attainment of the 2015 8-hour ozone standard (70 ppb) for South Coast Air Basin and Coachella Valley which will focus on attaining the 70 ppb 8-hour ozone National Ambient Air Quality Standard (NAAQS) by 2037. On-road vehicles and off-road mobile sources represent the largest categories of NOx emissions. Accomplishment of attainment goals requires an approximate 70% reduction in NOx emissions.

Large scale transition to zero emission technologies is a key strategy. To this end, Governor Executive Order N-79-20 requires 100 percent EV sales by 2035 for automobiles and short haul drayage trucks. A full transition to EV buses and heavy-duty long-haul trucks is required by 2045.

South Coast Air Quality Management District Rules and Regulations

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

- Rule 203 (Permit to Operate): This rule requires that a permit to operate be obtained before operation or use any equipment that may cause the issuance of air contaminants. It would apply to portable generators used during construction.
- Rule 401 (Visible Emissions): This rule prohibits the discharge of visible air pollutant emissions from various sources as determined by shade and opacity criteria based on the Ringelmann Chart.
- Rule 402 (Nuisance): This rule prohibits the discharge of quantities of air contaminants or other material that causes injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.
- Rule 403 (Fugitive Dust Control): This rule includes various requirements to prevent, reduce, and mitigate the amount of particulate matter entrained in the ambient air from man-made fugitive dust sources.
- Rule 1113 (Architectural Coatings): This rule establishes VOC content limits for a variety of architectural coatings, including 50 grams per liter for flat and non-flat coatings.

Rule 2305 Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program

On May 7, 2021, South Coast AQMD's Governing Board adopted Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program, and Rule 316 – Fees for Rule 2305. Rules 2305 and 316 are new rules that will reduce regional and local emissions of nitrogen oxides (NOx) and particulate matter (PM), including diesel PM. These emission reductions will reduce public health impacts for communities located near warehouses from mobile sources that are associated with warehouse activities. Also, the emission reductions will help the region attain federal and state ambient air quality standards.

Rule 2305 applies to owners and operators of warehouses greater than or equal to 100,000 SF that operate at least 50,000 SF of the warehouse for warehousing activities. According to SCAQMD, under Rule 2305, operators are subject to an annual WAIRE Points Compliance Obligation that is calculated based on the annual number of truck trips to the warehouse. WAIRE Points can be earned by implementing actions in a prescribed menu in Rule 2305, implementing a site-specific custom plan, or paying a mitigation fee. Warehouse owners are only required to submit limited information reports, but they can opt in to earn Points on behalf of their tenants if they so choose because certain actions to reduce emissions may be better achieved at the warehouse development phase, such action as the installation of solar and charging infrastructure. Rule 316 is a companion fee rule for Rule 2305 to allow South Coast AQMD to recover costs associated with Rule 2305 compliance activities.

In the NOP comment letter provided by SCAQMD for the proposed AGSP, staff indicates that, since the AGSP consists of the development of 7,802,542 SF of possible warehouse uses, future warehouses owners and operators under the AGSP will be required to comply with Rule 2305 once the warehouses are occupied.

4.4.2.4 Local Regulations

City of Highland General Plan Policies

The City of Highland General Plan offers the following Public Health and Safety Element Goals, Policies and Programs regarding air quality:

Public Health & Safety Element: Goal 6.8

A circulation network that efficiently, safely and economically moves people, vehicles, and goods using transportation facilities that meet the current demands and projected needs of the City, while maintaining and protecting its residential and spa resort character.

Public Health & Safety Element: Policy 1

Ensure consistency of Federal, State, and County legislation with Highland's Air Quality goal and policies.

Public Health & Safety Element: Policy 2

Participate in formulating regional policies and solutions to air quality problems established by the San Bernardino County Regional Air Quality Plan.

Public Health & Safety Element: Policy 3

Create and integrate innovative local emissions reducing pilot programs into city plans for future government facilities and equipment.

Public Health & Safety Element: Policy 4

Support the development and use of alternative fuel sources for transportation-related activities to reduce local government energy demand.

Public Health & Safety Element: Policy 5

Participate in the establishment of public private partnerships for the provision of innovative public and private transportation services and systems where the enhancement of the local and regional air quality is a major goal.

Public Health & Safety Element: Policy 6

Cooperate with regional transit agencies in the continued development of diverse and efficiently operated transportation systems that generate the minimum feasible pollutants.

Public Health & Safety Element: Policy 7

Support current incentive programs that recognize and reward developments using new and innovative emission reduction techniques such as innovative efficient window glazing, wall insulation, and ventilation systems; efficient air conditioning, heating, and appliances; use of passive solar design, and solar heating systems; use of energy cogeneration and/or use of waste energy; and landscape techniques that reduce water consumption and provide passive solar benefits.

Public Health & Safety Element: Policy 8

Develop transportation demand management programs and incentives to reduce home to work vehicle trips. Examples of programs and incentives include:

- Employee ride share and transit incentives in public agencies.
- Employee ride share and transit incentives for employers with more than 25 employees at a single location.
- Working with private agencies in the implementation of teleconferencing and telecommuting for employers with more than 25 employees at a single location.
- Working with SANBAG to develop a public/private telecommunications center in San Bernardino County.

Public Health & Safety Element: Policy 9

Reduce work trips in the City and peak period auto travel by enforcing the City's Transportation Demand Ordinance; supporting current staggered, flexible, and compressed work schedules in public agencies; working with private agencies to encourage work schedule flexibility programs for employers with more than 25 employees in a single location; educating City residents on the advantages of ride sharing and public transit; and encouraging the development of job-intensive uses within designated employment centers for local residents.

Public Health & Safety Element: Policy 10

Reduce vehicle emissions by supporting the design and implementation of the Citywide system of bikeways and pedestrian trails as a non-polluting circulation alternative by requiring as part of the development review process the installation of planned bicycle routes, paths, and lanes where designated; and the construction of necessary bicycle parking and storage areas within convenient commercial, employment and recreation activity areas.

Public Health & Safety Element: Policy 11

Reduce the number of vehicles driven to work by requiring as part of the development review process that preferential parking be included in parking lot designs to high occupancy vehicles, vanpools, and shuttle services, if applicable.

Public Health & Safety Element: Policy 12

Continue to encourage the integration of air quality planning with land use and transportation planning in the design, review, and development processes by:

- Ensuring that site designs facilitate rather than discourage pedestrian movement between commercial development and residential or office uses (e.g., locate buildings adjacent to the street with parking behind such that pedestrians need not walk through parking lots to reach their destination; provide clear pedestrian paths and connections, etc.).
- Supporting the mixed use overlay in the zoning ordinance as a means to enhance pedestrian movement throughout the City.
- Providing for increased intensity of development in designated locations along existing and proposed transit corridors.
- Supporting location and operational standards in the development code for ancillary employee services, including but not limited to child care, restaurants, banking facilities, convenience markets, at major employment centers for the purpose of reducing midday vehicle trips.
- Continuing to develop interconnected traffic signal control system in all new projects, roadway improvements. Move forward with programs to retrofit existing signals on all streets where traffic volume and delay time is significant.
- Enforcing parking lot design guidelines that encourage reciprocal parking designs and/or agreements between adjacent developments, provide for the consolidation of driveways along major commercial corridors such as Base Line, and require parking areas be efficiently designed so as to minimize internal circulation conflicts.
- Integrating, where appropriate and feasible, traffic improvements (e.g., dedicated turn lanes and pockets, bus turnouts and shelters, restripe traffic lands for optimal traffic flow) into capital improvement projects that improve the efficiency of transportation systems.
- Continuing to ensure that all new development applications include an air quality improvement summary per SCAQMD and SCAG Air Quality Handbook Guidelines, which describe the general methods used in development design to reduce air emissions.

Public Health & Safety Element: Policy 13

Regulate the location and design of sensitive receptors (schools, day care facilities, hospitals and the like) from excessive and hazardous emissions to air pollution, and continue to support site plans that separate and/or buffer residential and sensitive receptors from freeways, arterials, point sources, and hazardous material locations.

Public Health & Safety Element: Policy 14

Reduce particulate emissions from construction sites, grading activities, temporary roads and parking lots, and agricultural operations by enforcing requirements that minimize fugitive dust.

Public Health & Safety Element: Policy 15

Enforce compliance of new development with the Tree Preservation Ordinance.

Public Health & Safety Element: Policy 16

Reduce particulate and stationary emissions attributed to the removal, transportation and processing of mineral resources by enforcing required permits and physical barrier requirements that minimize the effects of dust from day-to-day operations of mineral extraction, transportation, and processing facilities.

City of San Bernardino General Plan Policies

The City of San Bernardino General Plan offers the following Goals, Policies and Programs regarding air quality:

Land Use: Goal 2.2

Promote development that integrates with and minimizes impacts on surrounding land uses.

Land Use: Policy 2.2.7

Control the development of industrial and similar uses that use, store, produce or transport toxics, air emissions, and other pollutants. (LU-1)

Land Use: Goal 2.4

Enhance the quality of life and economic vitality in San Bernardino by strategic infill of new development and revitalization of existing development.

Land Use: Policy 2.4.6

Work with Omnitrans to explore initiatives that promote redevelopment near transit stops in order to encourage transit ridership, reduce vehicular trips, improve air quality, and improve traffic congestion:

- a. Concentrate mixed use development, retail, employment, entertainment, educational, and civic/government uses within walking distance of transit stops.
- b. Explore the use of incentives that can be awarded to projects that provide pedestrian amenities (wide sidewalks, public plazas, seating areas, etc...) and/or include desirable uses located within walking distance (1/2 mile) of transit stops. Incentives may include density bonuses, increases in non-residential floor area, reductions in parking requirements, and modified development standards.

Land Use: Goal 2.8

Protect the life and property of residents, businesses, and visitors to the City of San Bernardino from crime and the hazards of flood, fire, seismic risk, and liquefaction.

Land Use: Policy 2.8.4

Control the development of industrial and other uses that use, store, produce, or transport toxics, air emissions, and other pollutants. (LU-1)

Circulation: Goal 6.6

Promote a network of multi-modal transportation facilities that are safe, efficient, and connected to various points of the City and the region.

Circulation: Policy 6.6.9

Work with Omnitrans to create transit corridors, such as the one currently being explored on E Street linking CSUSB to Hospitality Lane, to increase transit ridership, reduce traffic congestion, and improve air quality.

Safety: Goal 10.1

Protect the environment, public health, safety, and welfare from hazardous wastes.

Circulation: Policy 10.1.2

Ensure the protection of surface and groundwater quality, land resources, air quality, and environmentally sensitive areas through safe transportation of waste through the City and comprehensive planning of hazardous materials, wastes, and sites.

Natural Resources and Conservation: Goal 12.4

Properly manage designated areas for mineral extraction to meet the needs of the area.

Natural Resources and Conservation: Policy 12.4.8

Require that new, non-mining land uses adjacent to existing mining operations be designed to provide a buffer between the new development and the mining operations. The buffer distance shall be based on an evaluation of noise, aesthetics, drainage, operating conditions, biological resources, topography, lighting, traffic, operating hours, and air quality. (LU-1)

Natural Resources and Conservation: Goal 12.5

Promote air quality that is compatible with the health, well-being, and enjoyment of life.

Natural Resources and Conservation: Policy 12.5.1

Reduce the emission of pollutants including carbon monoxide, oxides of nitrogen, photochemical smog, and sulfate in accordance with South Coast Air Quality Management District (SCAQMD) standards.

Natural Resources and Conservation: Policy 12.5.2

Prohibit the development of land uses (e.g., heavy manufacturing) that will contribute significantly to air quality degradation, unless sufficient mitigation measures are undertaken according to SCAQMD standards.

Natural Resources and Conservation: Policy 12.5.3

Require dust abatement measures during grading and construction operations. (LU-1)

Natural Resources and Conservation: Policy 12.5.4

Evaluate the air emissions of industrial land uses to ensure that they will not impact adjacent uses.

Natural Resources and Conservation: Policy 12.5.5

Purchase City vehicles that use energy efficient fuel and minimize air pollution. (NR-2)

Natural Resources and Conservation: Goal 12.6

Reduce the amount of vehicular emissions in San Bernardino.

Natural Resources and Conservation: Policy 12.6.1

Promote a pattern of land uses which locates residential uses in close proximity to employment and commercial services and provides, to the fullest extent possible, local job opportunities and commercial service to minimize vehicular travel and associated air emissions.

Natural Resources and Conservation: Policy 12.6.2

Disperse urban service centers (libraries, post offices, social services, etc.) throughout the City to minimize vehicle miles traveled and the concomitant dispersion of air pollutants.

Natural Resources and Conservation: Policy 12.6.3

Install streetscape improvements and other amenities to encourage pedestrian activity in key City areas and reduce vehicular travel and associated air emissions.

Natural Resources and Conservation: Policy 12.6.4

Facilitate the development of centralized parking lots and structures in commercial districts to promote walking between individual businesses in lieu of the use of automobiles. (LU-1)

Natural Resources and Conservation: Policy 12.6.5

Require qualifying development to implement or participate in transportation demand management programs, which provide incentives for carpooling, van pools, and the use of public transit and employ other trip reduction techniques (consistent with the Circulation Element and South Coast Air Quality Management Plan).

Natural Resources and Conservation: Policy 12.6.6

Continue to cooperate with Omnitrans and the Rapid Transit District to expand as necessary the comprehensive mass transit system for the City to reduce vehicular travel.

Natural Resources and Conservation: Policy 12.6.7

Promote the use of public transit and alternative travel modes to reduce air emissions.

Natural Resources and Conservation: Goal 12.7

Participate in regional initiatives and programs to improve the South Coast Basin's air quality.

Natural Resources and Conservation: Policy 12.7.1

Cooperate with the South Coast Air Quality Management District and incorporate pertinent local implementation provisions of the Air Quality Management Plan.

Natural Resources and Conservation: Policy 12.7.2

Work with the South Coast Air Quality Management District to establish controls and monitor uses in the City that could add to the air basin's degradation (e.g., auto repair, manufacturers).

Natural Resources and Conservation: Policy 12.7.3

Coordinate with SCAQMD to ensure that all elements of air quality plans regarding reduction of air pollutant emissions are being enforced.

Natural Resources and Conservation: Policy 12.7.4

Work with the other cities in the South Coast Air Basin to implement regional mechanisms to reduce air emissions and improve air quality.

Natural Resources and Conservation: Policy 12.7.5

Support legislation that promotes cleaner industry, clean fuel vehicles, and more efficient burning engines and fuels.

Natural Resources and Conservation: Policy 12.7.6

Encourage, publicly recognize, and reward innovative approaches to improve air quality.

Natural Resources and Conservation: Policy 12.7.7

Involve environmental groups, the business community, special interests, and the general public in the formulation and implementation of programs that actively reduce airborne pollutants.

4.4.3 Existing Conditions: Air Quality

4.4.3.1 South Coast Air Basin

The Project site is located in the South Coast Air Basin (SCAB) within the jurisdiction of South Coast Air Quality Management District (SCAQMD). The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards. As previously stated, the Project site is located within the South Coast Air Basin (SCAB), a 6,745-square mile subregion of the SCAQMD, which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County.

The SCAB is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Los Angeles County portion of the Mojave Desert Air Basin is bounded by the San Gabriel Mountains to the south and west, the Los Angeles/Kern County border to the north, and the Los Angeles / San Bernardino County border to the east. The Riverside County portion of the Salton Sea Air Basin is bounded by the San Jacinto Mountains in the west and spans eastward to the Palo Verde Valley at the Colorado River.

4.4.3.2 Regional Climate

The regional climate has a substantial influence on air quality in the SCAB. In addition, the temperature, wind, humidity, precipitation, and amount of sunshine influence the air quality.

The annual average temperatures throughout the SCAB vary from the low to middle 60s degrees Fahrenheit (°F). Due to a decreased marine influence, the eastern portion of the SCAB shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the SCAB, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the SCAB have recorded maximum temperatures above 100°F.

Although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB, and the conversion of sulfur dioxide (SO₂) to sulfates (SO₄) is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71% along the coast and 59% inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast.

More than 90% of the SCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB with frequency being higher near the coast.

Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14½ hours of possible sunshine.

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SCAB is the "Catalina Eddy," a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections.

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an

impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as NOX and CO from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline.

4.4.3.3 Wind Patterns and Project Location

The distinctive climate of the Project area and the SCAB is determined by its terrain and geographical location. The SCAB is located on 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.

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

4.4.3.4 Criteria Pollutants

Criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible concentrations of pollutants. Criteria pollutants, their typical sources, and health effects are identified below, Table 4.4-2.

**Table 4.4-2
 CRITERIA POLLUTANTS**

Criteria Pollutant	Description	Sources	Health Effects
CO	CO is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone (O ₃), motor vehicles operating at slow speeds are the primary source of CO in the SCAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.	Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming equipment and residential heating.	Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen (O ₂) supply to the heart. Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with O ₂ transport and competing with O ₂ to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for O ₂ supply can be adversely affected by exposure to CO.

Criteria Pollutant	Description	Sources	Health Effects
SO ₂	<p>SO₂ is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO₂ oxidizes in the atmosphere, it forms SO₄. Collectively, these pollutants are referred to as sulfur oxides (SO_x).</p>	<p>Coal or oil burning power plants and industries, refineries, diesel engines</p>	<p>Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia (O₂ deficiency) as seen at high altitudes.</p> <p>A few minutes of exposure to low levels of SO₂ can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO₂. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO₂. Animal studies suggest that despite SO₂ being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.</p> <p>Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO₂ levels. In these studies, efforts to separate the effects of SO₂ from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically, or one pollutant alone is the predominant factor.</p>
NO _x	<p>NO_x consist of nitric oxide (NO), nitrogen dioxide (NO₂) and nitrous oxide (N₂O) and are formed when nitrogen (N₂) combines with O₂. Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. NO_x is typically created during combustion processes and are major contributors to smog</p>	<p>Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming equipment and residential heating.</p>	<p>Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO₂ at levels found in homes with gas stoves, which are higher than ambient levels found in</p>

Criteria Pollutant	Description	Sources	Health Effects
	<p>formation and acid deposition. NO₂ is a criteria air pollutant and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of nitrogen oxide compounds, NO₂ is the most abundant in the atmosphere. As ambient concentrations of NO₂ are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO₂ than those indicated by regional monitoring station.</p>		<p>Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO₂ in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups. In animals, exposure to levels of NO₂ considerably higher than ambient concentrations result in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of O₃ exposure increases when animals are exposed to a combination of O₃ and NO₂.</p>
O ₃	<p>O₃ is a highly reactive and unstable gas that is formed when VOCs and NO_x, both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. O₃ concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.</p>	<p>Formed when reactive organic gases (ROG) and NO_x react in the presence of sunlight. ROG sources include any source that burns fuels, (e.g., gasoline, natural gas, wood, oil) solvents, petroleum processing and storage and pesticides.</p>	<p>Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for O₃ effects. Short-term exposure (lasting for a few hours) to O₃ at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated O₃ levels are associated with increased school absences. In recent years, a correlation between elevated ambient O₃ levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple outdoor sports and live in communities with high O₃ levels.</p>

Criteria Pollutant	Description	Sources	Health Effects
			<p>O₃ exposure under exercising conditions is known to increase the severity of the responses described above. Animal studies suggest that exposure to a combination of pollutants that includes O₃ may be more toxic than exposure to O₃ alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.</p>
<p>Particulate Matter</p>	<p>PM₁₀: A major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. Particulate matter pollution is a major cause of reduce visibility (haze) which is caused by the scattering of light and consequently the significant reduction air clarity. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be deposited, resulting in adverse health effects. Additionally, it should be noted that PM₁₀ is considered a criteria air pollutant. PM_{2.5}: A similar air pollutant to PM₁₀ consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). These particles are formed in the atmosphere from primary gaseous emissions that include SO₄ formed from SO₂ release from power plants and industrial facilities and nitrates that are formed from NO_x release from power plants, automobiles and other types of combustion sources. The chemical composition of fine particles highly depends on location, time of year, and weather conditions. PM_{2.5} is a criteria air pollutant.</p>	<p>Sources of PM₁₀ include road dust, windblown dust and construction. Also formed from other pollutants (acid rain, NO_x, SO_x, organics). Incomplete combustion of any fuel. PM_{2.5} comes from fuel combustion in motor vehicles, equipment and industrial sources, residential and agricultural burning. Also formed from reaction of other pollutants (acid rain, NO_x, SO_x, organics).</p>	<p>A consistent correlation between elevated ambient fine particulate matter (PM₁₀ and PM_{2.5}) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in lifespan, and an increased mortality from lung cancer. Daily fluctuations in PM_{2.5} concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long term exposure to particulate matter. The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM₁₀ and PM_{2.5}.</p>

Criteria Pollutant	Description	Sources	Health Effects
VOC	<p>VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O₃ to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include CO, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O₃, which is a criteria pollutant. The terms VOC and ROG (see below) interchangeably.</p>	<p>Organic chemicals are widely used as ingredients in household products. Paints, varnishes and wax all contain organic solvents, as do many cleaning, disinfecting, cosmetic, degreasing and hobby products. Fuels are made up of organic chemicals. All of these products can release organic compounds while you are using them, and, to some degree, when they are stored.</p>	<p>Breathing VOCs can irritate the eyes, nose and throat, can cause difficulty breathing and nausea, and can damage the central nervous system as well as other organs. Some VOCs can cause cancer. Not all VOCs have all these health effects, though many have several.</p>
ROG	<p>Similar to VOC, ROGs are also precursors in forming O₃ and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and NO_x react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O₃, which is a criteria pollutant. The terms ROG and VOC (see previous) interchangeably.</p>	<p>Sources similar to VOCs.</p>	<p>Health effects similar to VOCs.</p>
Lead (Pb)	<p>Pb is a heavy metal that is highly persistent in the environment and is considered a criteria pollutant. In the past, the primary source of Pb in the air was emissions from vehicles burning leaded gasoline. The major sources of Pb emissions are ore and metals processing, particularly Pb smelters, and piston-engine aircraft operating on leaded aviation gasoline. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. It should be noted that the Project</p>	<p>Metal smelters, resource recovery, leaded gasoline, deterioration of Pb paint.</p>	<p>Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased Pb levels are associated with increased blood pressure.</p>

Criteria Pollutant	Description	Sources	Health Effects
	<p>does not include operational activities such as metal processing or Pb acid battery manufacturing. As such, the Project is not anticipated to generate a quantifiable amount of Pb emissions.</p>		<p>Pb poisoning can cause anemia, lethargy, seizures, and death; although it appears that there are no direct effects of Pb on the respiratory system. Pb can be stored in the bone from early age environmental exposure, and elevated blood Pb levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers.</p>
Odor	<p>Odor means the perception experienced by a person when one or more chemical substances in the air come into contact with the human olfactory nerves (6).</p>	<p>Odors can come from many sources including animals, human activities, industry, natures, and vehicles.</p>	<p>Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.</p>

Source: Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. 2005.

4.4.3.5 Existing Air Quality

Existing air quality is measured at established SCAQMD air quality monitoring stations. Monitored air quality is evaluated in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are shown in Table 4.4-3.

The determination of whether a region’s air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards. At the time of this AQIA, the most recent state and federal standards were updated by CARB on May 4, 2016 and are presented in Table 4.4-3. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O₃, CO (except 8-hour Lake Tahoe), SO₂ (1 and 24 hour), NO₂, PM₁₀, and PM_{2.5} do not exceed standards. All others are not to be

equaled or exceeded. It should be noted that the three-year period is presented for informational purposes and is not the basis for how the State assigns attainment status. Attainment status for a pollutant means that the SCAQMD meets the standards set by the federal Environmental Protection Agency (EPA) or the California EPA (CalEPA). Conversely, nonattainment means that an area has monitored air quality that does not meet the NAAQS or CAAQS standards. In order to improve air quality in nonattainment areas, CARB has implemented a State Implementation Plan (SIP). The SIP outlines the measures that the state will take to improve air quality. Once nonattainment areas meet the standards and additional redesignation requirements, the EPA will designate the area as a maintenance area.

4.4.3.6 Regional Air Quality

Air pollution contributes to a wide variety of adverse health effects. The EPA has established NAAQS for six of the most common air pollutants: CO, Pb, O₃, particulate matter (PM₁₀ and PM_{2.5}), NO₂, and SO₂ which are known as criteria pollutants. The SCAQMD monitors levels of various criteria pollutants at 37 permanent monitoring stations and 5 single-pollutant source Pb air monitoring sites throughout the air district. On February 21, 2019, CARB posted the 2018 amendments to the state and national area designations. See Table 4.4-4 for attainment designations for the SCAB. Appendix 2.1 provides geographic representation of the state and federal attainment status for applicable criteria pollutants within the SCAB.

**Table 4.4-3
 AMBIENT AIR QUALITY STANDARDS**

Pollutant	Average Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O ₃) ⁸	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
Respirable Particulate Matter (PM ₁₀) ⁹	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		–		
Fine Particulate Matter (PM _{2.5}) ⁹	24 Hour	–	–	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³	15.0 µg/m ³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	–	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		–	–	
Nitrogen Dioxide (NO ₂) ¹⁰	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	–	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂) ¹¹	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	–	Ultraviolet Flourescence; Spectrophotometry (Paraosaniline Method)
	3 Hour	–		–	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹¹	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas) ¹¹	–	
Lead ^{8,12,13}	30-Day Average	1.5 µg/m ³	Atomic Absorption	–	–	–
	Calendar Quarter	–		1.5 µg/m ³ (for certain areas) ¹²	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Avg	–		0.15 µg/m ³		
Visibility Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No Federal Standards		
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

Source: California Air Resources Board 5/4/16

Footnotes:

- 1 California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter – PM10, PM2.5, 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.
- 2 National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year, with a 24-hour average concentration above $150 \mu\text{g}/\text{m}^3$, is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.
- 3 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- 4 Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
- 5 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- 6 National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- 7 Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
- 8 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
- 9 On December 14, 2012, the national PM2.5 primary standard was lowered from $15 \mu\text{g}/\text{m}^3$ to $12.0 \mu\text{g}/\text{m}^3$. The existing national 24-hour PM2.5 standards (primarily and secondary) were retained at $35 \mu\text{g}/\text{m}^3$, as was the annual secondary standard of $15 \mu\text{g}/\text{m}^3$. The existing 24-hour PM10 standards (primarily and secondary) of $150 \mu\text{g}/\text{m}^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- 10 To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
- 11 On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that 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.
- 12 The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- 13 The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard ($1.5 \mu\text{g}/\text{m}^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- 14 In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

**Table 4.4-4
 ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SCAB**

Criteria Pollutant	State Designation	Federal Designation
O ₃ – 1-hour standard	Nonattainment	--
O ₃ – 8-hour standard	Nonattainment	Nonattainment
PM ₁₀	Nonattainment	Attainment
PM _{2.5}	Nonattainment	Nonattainment
CO	Attainment	Unclassifiable/Attainment
NO ₂	Attainment	Unclassifiable/Attainment
SO ₂	Unclassifiable/Attainment	Unclassifiable/Attainment
Pb ²	Attainment	Unclassifiable/Attainment

Note: See Appendix 2.1 for a detailed map of State/National Area Designations within the SCAB
 "--" = The national 1-hour O₃ standard was revoked effective June 15, 2005.

4.4.3.7 Local Air Quality

The SCAQMD has designated general forecast areas and air monitoring areas (referred to as Source Receptor Areas [SRA]) throughout the District in order to provide Southern California residents with information about the air quality conditions. The proposed Development Site is located within the SRA 34. Within SRA 34, the SCAQMD Central San Bernardino Valley 1 monitoring station is located 0.7 miles west of the Development Site and is the nearest long-term air quality monitoring site for O₃, CO, NO₂, PM₁₀, and PM_{2.5}.

The most recent three (3) years of data available is shown on Table 4.4-5 and identifies the number of days ambient air quality standards were exceeded for the study area, which is considered to be representative of the local air quality at the Development Site. Data for O₃, CO, NO₂, PM₁₀, and PM_{2.5} for 2017 through 2019 was obtained from the SCAQMD Air Quality Data Tables. Additionally, data for SO₂ has been omitted as attainment is regularly met in the SCAB and few monitoring stations measure SO₂ concentrations.

² The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the SCAB.

**Table 4.4-5
 PROJECT AREA AIR QUALITY MONITORING SUMMARY 2017-2019**

Pollutant	Standard	YEAR		
		2017	2018	2019
O ₃				
Maximum Federal 1-Hour Concentration (ppm)		0.137	0.141	0.124
Maximum Federal 8-Hour Concentration (ppm)		0.118	0.111	0.109
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	49	38	41
Number of Days Exceeding State/Federal 8-Hour Standard	> 0.070 ppm	49	69	67
CO				
Maximum Federal 1-Hour Concentration	> 35 ppm	1.6	1.9	2.7
Maximum Federal 8-Hour Concentration	> 20 ppm	1.3	1.1	1.0
NO ₂				
Maximum Federal 1-Hour Concentration	> 0.100 ppm	0.069	0.063	0.076
Annual Average		18.3	18.3	17.2
PM ₁₀				
Maximum Federal 24-Hour Concentration (µg/m ³)	> 150 µg/m ³	75	64	88
Annual Federal Arithmetic Mean (µg/m ³)		39.3	34.1	34.8
Number of Days Exceeding Federal 24-Hour Standard	> 150 µg/m ³	0	0	0
Number of Days Exceeding State 24-Hour Standard	> 50 µg/m ³	7	9	12
PM _{2.5}				
Maximum Federal 24-Hour Concentration (µg/m ³)	> 35 µg/m ³	39.2	29.2	46.5
Annual Federal Arithmetic Mean (µg/m ³)	> 12 µg/m ³	12.0	11.1	10.8
Number of Days Exceeding Federal 24-Hour Standard	> 35 µg/m ³	1	0	0

ppm = Parts Per Million

µg/m³ = Microgram per Cubic Meter

Source: Data for O₃, CO, NO₂, PM₁₀, and PM_{2.5} was obtained from SCAQMD Air Quality Data Tables.

4.4.4 Thresholds of Significance

The criteria used to determine the significance of potential Project-related air quality impacts are taken from the *CEQA Guidelines* (14 CCR §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would:

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

The SCAQMD has also developed regional significance thresholds for other regulated pollutants, as summarized at Table 4.4-6. The SCAQMD’s *CEQA Air Quality Significance Thresholds* (April 2019) indicate that any projects in the SCAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact.

**Table 4.4-6
 MAXIMUM DAILY REGIONAL EMISSIONS THRESHOLDS**

Pollutant	Regional Construction Threshold	Regional Operational Thresholds
NO _x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM ₁₀	150 lbs/day	150 lbs/day
PM _{2.5}	55 lbs/day	55 lbs/day
SO _x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Pb	3 lbs/day	3 lbs/day

lbs/day = Pounds Per Day

4.4.5 Methodology

4.4.5.1 Approach For Analysis Of The Project

For purposes of analysis, CalEEMod default parameters were used to determine mobile-source emissions from all non-industrial land uses. In order to determine emissions from passenger car vehicles, the CalEEMod defaults were utilized for trip length and trip purpose for the proposed industrial land uses.

For the proposed industrial uses, it is important to note that although the Traffic Impact Study (TIS) does not breakdown passenger cars by type, this analysis assumes that passenger cars include Light-Duty-Auto vehicles (LDA), Light-Duty-Trucks (LDT1³ & LDT2⁴), Medium-Duty-Vehicles (MDV), Motorcycles (MCY) vehicle types. In order to account for emissions generated by passenger cars, the following fleet mix (Table 4.4-7) was utilized in this analysis:

³ Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

⁴ Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

**Table 4.4-7
 PASSENGER CAR FLEET MIX**

Land Use	Vehicle Type	%
High-Cube Transload & Short-Term Warehouse/ Warehousing	LDA	63.82
	LDT1	3.67
	LDT2	20.69
	MDV	11.23
	MCY	5.90

Note: The Project-specific passenger car fleet mix used in this analysis is based on a proportional split utilizing the default CalEEMod percentages assigned to LDA, LDT1, LDT2, and MDV vehicles types.

For purposes of analysis, CalEEMod default parameters were used to determine mobile-source emissions from all non-industrial land uses. In order to determine emissions from trucks for the proposed industrial uses, the analysis incorporated the SCAQMD recommended truck trip length of 40 miles⁵ and an assumption of 100% primary trips for the proposed industrial land uses.

In order to be consistent with the TIS, trucks are broken down by truck type. The truck fleet mix is estimated by rationing the trip rates for each truck type based on information provided in the TIS. Heavy trucks are broken down by truck type (or axle type) and are categorized as either Light-Heavy-Duty Trucks (LHDT1⁶ & LHDT2⁷)/2-axle, Medium-Heavy-Duty Trucks (MHDT)/3-axle, and Heavy-Heavy-Duty Trucks (HHDT)/4+-axle. In order to account for emissions generated by trucks, the following fleet mix (Table 4.4-8) was utilized in this analysis:

**Table 4.4.8
 TRUCK FLEET MIX**

Land Use	Vehicle Type	%
High-Cube Transload & Short-Term Warehouse	HHDT	100
High-Cube Fulfillment Center Warehouse	LHDT1	11.68
	LHDT2	5.26
	MHDT	22.69
	HHDT	60.37

Note: Project-specific truck fleet mix is based on the number of trips generated by each truck type (LHDT1, LHDT2, MHDT, and HHDT) relative to the total number of truck trips.

Fugitive Dust Related to Vehicular Travel

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of brake and tire wear particulates. The emissions estimates for travel on paved roads were calculated using CalEEMod.

⁵ The average trip length for heavy trucks were based on the SCAQMD documents for the implementation of the Facility-Based Mobile Source Measures (FBMSMs) adopted in the 2016 AQMP. SCAQMD’s “Preliminary Warehouse Emission Calculations” cites 39.9-mile trip length for heavy-heavy truck. As a conservative measure, a trip length of 40 miles has been utilized for all trucks for the purpose of this analysis.

⁶ Vehicles under the LHDT1 category have a GVWR of 8,501 to 10,000 lbs.

⁷ Vehicles under the LHDT2 category have a GVWR of 10,001 to 14,000 lbs.

4.4.5.2 On-Site Cargo Handling Equipment Emissions

It is common for industrial warehouse buildings to require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment that receive and distribute containers. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. The cargo handling equipment is assumed to have a hp range of approximately 175 hp to 200 hp. Based on the latest available information from SCAQMD, high-cube warehouse projects typically have 3.6 yard trucks per million sf of building space. For this particular Project, based on the maximum square footage of warehouse building space, on-site modeled operational equipment includes up to twenty-eight (28) 200 hp, compressed natural gas or gasoline-powered yard tractors operating at 4 hours a day for 365 days of the year.

Project Impacts

4.4.6 Air Quality Impact Analysis Data

4.4.6.1 Construction Emissions

Construction activities associated with the Project will result in emissions of VOCs, NO_x, SO_x, CO, PM₁₀, and PM_{2.5}. Construction related emissions are expected from the following construction activities:

- Demolition
- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

Demolition

Based on information provided by the Project Applicant, the Project will result in 5,985,752 tons of debris. This is an estimate based on the number of residential units located within the project area that are forecast to be removed in conjunction with the proposed project over the next 20 years.

Grading Activities

Dust is typically a major concern during grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called “fugitive emissions”. Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). CalEEMod was utilized to calculate fugitive dust emissions resulting from this phase of activity. At the time of this analysis, no information on grading quantities were readily available. As such, this study assumes a balanced site.

Construction Worker Vehicle Trips

Construction emissions for construction worker vehicles traveling to and from the Project site, as well as vendor trips (construction materials delivered to the Project site) were estimated based on information from CalEEMod defaults.

Construction Duration

For purposes of analysis, construction is expected to commence in June 2021 and will last through December 2040. The construction schedule utilized in the analysis, shown in Table 4.4-9, represents a “worst-case” analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent⁸. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines*.

Construction Equipment

The construction equipment fleet assumptions were based on CalEEMod defaults and were confirmed with the Project Applicant. A summary of construction equipment assumptions by phase is provided at Table 4.4-9.

Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 4.4-10 will operate up to a total of eight (8) hours per day, or more than two-thirds of the period during which construction activities are allowed pursuant to the code.

**Table 4.4-9
 CONSTRUCTION DURATION**

Phase Name	Start Date	End Date	Days
Demolition	06/01/2021	05/30/2022	260
Site Preparation	05/31/2022	12/12/2022	140
Grading	12/13/2022	07/22/2024	420
Building Construction	07/23/2024	12/31/2040	4,290
Paving	10/05/2038	12/31/2040	585
Architectural Coating	01/13/2032	12/31/2040	2,340

⁸ As shown in the CalEEMod User’s Guide Version 2016.3.2, Section 4.3 “OFFROAD Equipment” as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

**Table 4.4-10
 CONSTRUCTION EQUIPMENT ASSUMPTIONS**

Phase Name	Equipment ¹	Amount	Hours Per Day
Demolition	Concrete/Industrial Saws	2	8
	Excavators	5	8
	Rubber Tired Dozers	4	8
Site Preparation	Crawler Tractors	7	8
	Rubber Tired Dozers	5	8
Grading	Crawler Tractors	4	8
	Excavators	4	8
	Graders	2	8
	Rubber Tired Dozers	2	8
	Scrapers	4	8
Building Construction	Cranes	2	8
	Crawler Tractors	5	8
	Forklifts	5	8
	Generator Sets	2	8
	Welders	2	8
Paving	Pavers	4	8
	Paving Equipment	4	8
	Rollers	4	8
Architectural Coating	Air Compressors	2	8

¹ In order to account for fugitive dust emissions, Crawler Tractors were used in lieu of Tractors/Loaders/Backhoes.

4.4.6.2 Operational Emissions

Operational activities associated with the Project will result in emissions of VOCs, NO_x, SO_x, CO, PM₁₀, and PM_{2.5}. Operational emissions are expected from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- On-Site Cargo Handling Equipment Emissions

Area Source Emissions

Architectural Coatings

Over a period of time the buildings that are part of this Project will require maintenance and will therefore produce emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings. The emissions associated with architectural coatings were calculated using CalEEMod.

Consumer Products

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other

photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on defaults provided within CalEEMod.

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod.

Energy Source Emissions

Combustion Emissions Associated with Natural Gas and Electricity

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SCAB, criteria pollutant emissions from offsite generation of electricity are generally excluded from the evaluation of significance and only natural gas use is considered. Based on information provided by the Project Applicant, the Project would not utilize natural gas and therefore no air quality emissions from energy sources would occur.

Mobile Source Emissions

The Project related operational air quality emissions derive primarily from vehicle trips generated by the Project, including employee trips to and from the site and truck trips associated with the proposed uses. Trip characteristics available from the *Traffic Impact Study for the Airport Gateway Specific Plan Project in the Cities of San Bernardino and Highland* (TIS) were utilized in this analysis.

4.4.6.3 Potential Impacts

AQ-1 Would the project conflict with or obstruct implementation of the applicable air quality plan?

The Project site is located within the SCAB, which is characterized by relatively poor, but improving air quality. The SCAQMD has jurisdiction over an approximately 10,743 square-mile area consisting of the four-county Basin and the Los Angeles County and Riverside County portions of what use to be referred to as the Southeast Desert Air Basin. In these areas, the SCAQMD is principally responsible for air pollution control, and works directly with the Southern California Association of Governments (SCAG), county transportation commissions, local governments, as well as state and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards. Currently, certain state and federal air quality standards are exceeded in most parts of the SCAB (refer to Table 4.4-3). In response, the SCAQMD has adopted a series of AQMPs to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

In March 2017, the SCAQMD released the *Final 2016 AQMP (2016 AQMP)*. The *2016 AQMP* continues to evaluate current integrated strategies and control measures to meet the NAAQS, as

well as explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels. Similar to the 2012 AQMP, the 2016 AQMP incorporates scientific and technological information and planning assumptions, including the 2016-2040 *Regional Transportation Plan/Sustainable Communities Strategy (2016-2040 RTP/SCS)*, a planning document that supports the integration of land use and transportation to help the region meet the federal CAA requirements. The Project's consistency with the AQMP will be determined using the 2016 AQMP as discussed below.

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the 1993 *CEQA Handbook*. These indicators are discussed below:

Consistency Criterion No. 1

The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

Construction Impacts – Consistency Criterion 1

The violations that Consistency Criterion No. 1 refers to are the CAAQS and NAAQS. CAAQS and NAAQS violations could occur if localized or regional significance thresholds are exceeded. The Project has the potential to exceed the applicable regional significance thresholds for construction activity (after mitigation). Therefore, the Project has the potential to conflict with the AQMP according to this criterion.

Operational Impacts – Consistency Criterion 1

The Project has the potential to exceed the applicable regional significance thresholds for operational activity. Therefore, the Project has the potential to conflict with the AQMP according to this criterion.

On the basis of the preceding discussion, the Project is determined to have the potential to conflict with Consistency Criterion No. 1.

Consistency Criterion No. 2

The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.

The 2016 AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the District are provided to the SCAG, which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in Cities of San Bernardino and Highland General Plan is considered to be consistent with the AQMP.

Construction Impacts – Consistency Criterion 2

Peak day emissions generated by construction activities are largely independent of land use assignments, but rather are a function of development scope and maximum area of disturbance. For the purposes of this analysis, construction within the AGSP planning area has been spread out over the next 20 years. Irrespective of the site's land use designation, development of a site

to its maximum potential would likely occur, with disturbance of the entire site occurring during construction activities. As such, when considering that emissions thresholds will be exceeded, a significant impact would result.

Operational Impacts – Consistency Criterion 2

The primary physical change in the environment when adopting a new land use plan is the change in the mix of uses between the existing land uses and land use designations and the proposed AGSP land use designations. The total acreage within the AGSP planning area is 679.13 acres, 209 acres of vacant land constitutes about 31.2% of the total acreage in the planning area.

After extensive discussions among the AGSP participants, a decision was made to establish “Mixed Use Business Park” as the only future human-occupied land use within the planning area. A total of 469.10 acres of the planning area are designated as Mixed Use Business Park. With some exceptions, this proposed land use is consistent with the existing land use designations within the AGSP planning area. The only other current designations in the AGSP planning area are land designated for residential acreage. The AGSP also assigns right-of-way (141.04 acres, primarily roadways) and floodway (68.79 acres) to the areas currently being used for these purposes. Additional planning assumptions for the AGSP planning area include a total of about 9,142,739 sf of non-residential development could be realized under the AGSP, and up to 75,000 sf of hotel (est. 150 rooms) could be constructed.

Notwithstanding, the Project would exceed the applicable SCAQMD regional threshold for construction and operational-source activity for emissions of NO_x and PM₁₀ and is therefore considered significant and unavoidable.

On the basis of the preceding discussion, the Project is determined to have the potential to conflict with Consistency Criterion No. 2.

AQMP Consistency Conclusion

The Project has the potential to cause or contribute to future NAAQS or CAAQS violations. Based on current assumptions included in the CalEEMod model, this finding is consistent with the data. Construction-source and operational-source emissions would exceed the applicable SCAQMD regional thresholds for NO_x and PM₁₀. The Project’s proposed land use designation for the subject site would potentially affect the development intensities. As such, the Project is considered to have the potential to conflict with the AQMP and a potential significant impact would occur with respect to this threshold.

However, the future related to air emissions, particularly with mobile source air emissions, is rapidly changing. First, specific objectives have been established by the State to transition to electric vehicles by 2035 and this objective has been expanded to include medium-sized drayage trucks. Second, SCAQMD is requiring transitions of large trucks from diesel fuel to compressed natural gas (CNG) and electric power. The effect of this transition is that less diesel particulates and NO_x will be emitted in the future. Third, the 2019 CALGreen and future building energy standards (summarized above) will also reduce air pollution emissions. Finally, SCE is making rapid transition to renewable electricity generation, with current electricity sources ranging between 30% and 40% renewable sources. This will reduce regional emissions. The point of this summary is not to conclude that emissions related to implementation of the AGSP will be reduced to a less than significant air quality impact, but with new development replacing existing

area developed more than 50 years ago, the emission footprint of the AGSP will gradually decline due to these trends in the SCAB.

Compliance with SCAQMD Adopted Rules

As previously stated, in the NOP comment letter provided by SCAQMD for the proposed AGSP, staff indicates that, since the AGSP consists of the development of 7,802,542 SF of possible warehouse uses, future warehouses owners and operators under the AGSP will be required to comply with Rule 2305 once the warehouses are occupied. SCAQMD staff recommended that the Lead Agency review South Coast AQMD Rule 2305 to determine the potential WAIRE Points Compliance Obligation for future operators and explore whether additional project requirements and CEQA mitigation measures can be identified and implemented under the AGSP that may help future warehouse operators meet their compliance obligation. As demonstrated above, and also under issue AQ-2, below, substantial mitigation shall be implemented to minimize emissions generated by the whole of the AGSP. These would aid future operators of warehouses within the AGSP Planning Area in meeting project specific WAIRE Point obligations. For the purposes of this analysis and at the request of the SCAQMD, the following calculation of WAIRE Point Compliance Obligation is provided to analyze the worst case point obligation scenario under the AGSP. Under the AGSP, as stated above, a possible development of 7,802,542 SF warehouse uses may occur. It is likely that, due to the configuration of the roadways, resulting in narrow width between east/west roadways within the AGSP, that not every warehouse proposal under the AGSP would fall under the parameters of Rule 2305 due to being smaller in size. This calculation, however, for the purpose of providing a worst-case scenario, assumes that all of the truck trips generated under the AGSP would fall under warehouse use, and given that the mix of types of hauling trucks is presently unknown, this analysis assumes that the entirety of the 3,171 daily truck trips would be Class 8 truck trips. The WAIRE Calculation is as follows:^{9,10}

$$WPCO = WATTS \times Stringency \times Annual \ Variable$$

The WAIRE Points Obligation Calculation for the AGSP is:

$$[3,171 \text{ daily truck trips} \times 365 \times 2.5] \times [0.0025 \text{ stringency}] \times [1 \text{ annual variable}] =$$

7,233.8 estimated WAIRE Points

Future operators under the AGSP meeting the criteria requiring compliance with Rule 2305 would be required to meet the obligations of the applicable estimated WAIRE Point Obligation Calculation, and each WAIRE Point Obligation Calculation would be calculated on a site-specific, project-specific basis, as each future project will require site-specific analysis under a second tier CEQA evaluation to be completed under the jurisdiction of the City in which the specific project is located.

Mitigation Measures: Please refer to the extensive construction and operation-source mitigation measures outlined below under Issue AQ-2, which minimize air quality emissions generated by AGSP development to the greatest extent feasible.

⁹ <http://www.aqmd.gov/docs/default-source/rule-book/reg-xxiii/r2305.pdf>

¹⁰ WPCO = WAIRE Points Compliance Obligation; WATTS = Weighted Annual Truck Trips as calculated in subparagraph (d)(1)(B) or (d)(1)(C), as applicable; Stringency = 0.0025 WAIRE Points per WATT; Annual Variable = As specified in Table 2

Level of Significance: Significant and Unavoidable

AQ-2 Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?

Construction Impacts Without Mitigation

The estimated maximum daily construction emissions without mitigation are summarized on Table 4.4-11. Detailed construction model outputs are presented in Appendix 3.1 of the AQIA prepared by Urban Crossroads (Appendix 1 of Volume 2). Under the assumed scenarios, emissions resulting from the Project construction will exceed thresholds established by the SCAQMD for emissions of NO_x and PM₁₀ during construction activity.

**Table 4.4-11
 OVERALL CONSTRUCTION EMISSIONS SUMMARY – WITHOUT MITIGATION**

Year	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
2021	21.06	605.56	137.90	1.91	259.11	49.89
2022	46.21	549.11	132.55	1.89	281.26	54.73
2023	8.76	111.69	63.96	0.25	19.11	7.43
2024	63.85	360.88	487.86	2.34	166.17	46.59
2025	60.44	351.12	454.86	2.29	165.90	46.34
2026	57.81	346.97	427.23	2.24	165.86	46.31
2027	55.27	343.17	402.79	2.20	165.82	46.26
2028	52.65	339.96	381.54	2.16	165.76	46.21
2029	49.80	336.94	361.07	2.13	165.71	46.16
2030	46.91	315.53	341.43	2.11	164.65	45.21
2031	43.94	314.25	325.78	2.09	164.61	45.17
2032	68.45	317.01	361.86	2.27	192.17	52.56
2033	65.67	314.80	346.05	2.25	192.12	52.52
2034	63.36	312.94	331.18	2.23	192.08	52.48
2035	60.98	306.68	318.56	2.21	191.82	52.23
2036	60.98	306.68	318.56	2.21	191.82	52.23
2037	60.98	306.68	318.56	2.21	191.82	52.23
2038	65.42	316.45	350.68	2.27	192.53	52.69
2039	65.42	316.45	350.68	2.27	192.53	52.69
2040	57.95	307.64	312.73	2.23	192.18	52.35
Maximum Daily Emissions	68.45	605.56	487.86	2.34	281.26	54.73
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	NO	YES	NO	NO	YES	NO

Source: CalEEMod construction-source (unmitigated) emissions are presented in Appendix 3.1 of the AQIA prepared by Urban Crossroads.

Impacts with Mitigation

The estimated maximum daily construction emissions with mitigation are summarized on Table 4.4-12. Mitigation Measure (MM) **AQ-1** is recommended to reduce the severity of the impacts. Detailed construction model outputs are presented in Appendix 3.2 of the AQIA prepared by Urban Crossroads. After implementation of MM **AQ-1**, Project construction-source emissions of NO_x and PM₁₀ would continue to exceed applicable SCAQMD thresholds. As such, even with application of MM **AQ-1**, Project construction-source emissions impacts would be significant and unavoidable.

**Table 4.4-12
 OVERALL CONSTRUCTION EMISSIONS SUMMARY – WITH MITIGATION**

Year	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
2021	21.06	605.56	137.90	1.91	259.11	49.89
2022	46.21	549.11	132.55	1.89	281.26	54.73
2023	8.76	111.69	63.96	0.25	19.11	7.43
2024	63.85	360.88	487.86	2.34	166.17	46.59
2025	60.44	351.12	454.86	2.29	165.90	46.34
2026	57.81	346.97	427.23	2.24	165.86	46.31
2027	55.27	343.17	402.79	2.20	165.82	46.26
2028	52.65	339.96	381.54	2.16	165.76	46.21
2029	49.80	336.94	361.07	2.13	165.71	46.16
2030	46.91	315.53	341.43	2.11	164.65	45.21
2031	43.94	314.25	325.78	2.09	164.61	45.17
2032	68.45	317.01	361.86	2.27	192.17	52.56
2033	65.67	314.80	346.05	2.25	192.12	52.52
2034	63.36	312.94	331.18	2.23	192.08	52.48
2035	60.98	306.68	318.56	2.21	191.82	52.23
2036	60.98	306.68	318.56	2.21	191.82	52.23
2037	60.98	306.68	318.56	2.21	191.82	52.23
2038	65.42	316.45	350.68	2.27	192.53	52.69
2039	65.42	316.45	350.68	2.27	192.53	52.69
2040	57.95	307.64	312.73	2.23	192.18	52.35
Maximum Daily Emissions	68.45	605.56	487.86	2.34	281.26	54.73
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	NO	YES	NO	NO	YES	NO

Source: CalEEMod construction-source (mitigated) emissions are presented in Appendix 3.2 of the AQIA prepared by Urban Crossroads.

Operational Impacts

Existing Conditions

As previously stated, the existing uses within the Specific Plan area include single-family and multi-family residential, small-lot commercial, educational facilities, and industrial uses. Vacant parcels make up approximately 209 acres of the Specific Plan area.

For purposes of analysis, the emissions associated with area and energy sources were calculated based on CalEEMod default parameters. Lastly, mobile source emissions were based on trip generation information provided in the TIS. The estimated operation-source emissions from the existing development are summarized on Table 4.4-13. Detailed operation model outputs are presented in Appendices 3.5 and 3.6 of the AQIA prepared by Urban Crossroads.

**Table 4.4-13
 SUMMARY OF EXISTING OPERATIONAL EMISSIONS**

Source	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Summer						
Area Source	411.95	20.59	560.73	1.24	72.93	72.93
Energy Source	1.27	11.19	6.87	0.07	0.88	0.88
Mobile Source	21.80	164.26	268.93	1.20	116.71	32.08
Total Maximum Daily Emissions	435.02	196.04	836.54	2.50	190.52	105.89
Winter						
Area Source	411.95	20.59	560.73	1.24	72.93	72.93
Energy Source	1.27	11.19	6.87	0.07	0.88	0.88
Mobile Source	20.52	171.10	232.56	1.15	116.60	32.04
Total Maximum Daily Emissions	433.74	202.89	800.17	2.46	190.41	105.85

Source: CalEEMod operational-source emissions are presented in Appendices 3.2 and 3.3 of the AQIA prepared by Urban Crossroads.

Proposed Project

CalEEMod utilizes summer and winter EMFAC2017 emission factors in order to derive vehicle emissions associated with Project operational activities, which vary by season. The estimated operational-source emissions are summarized on Tables 4.4-13. It should be noted that the existing development emissions were subtracted from the Project operational emissions to determine the net new emissions from the proposed Project. Detailed operation model outputs for the Project are presented in Appendices 3.3 through 3.5 of the AQIA prepared by Urban Crossroads. As shown on Table 4.4-14, the Project's daily regional emissions from on-going operations would exceed the thresholds of significance for emissions of NO_x and PM₁₀.

**Table 4.4-14
SUMMARY OF PEAK OPERATIONAL EMISSIONS**

Source	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Summer						
Area Source	132.43	0.03	3.79	2.90E-04	0.01	0.01
Energy Source	1.50	13.66	11.48	0.08	1.04	1.04
Mobile Source	53.54	665.67	725.76	4.38	368.30	103.07
On-Site Equipment Source	3.18	5.43	20.39	0.11	0.20	0.20
Total Maximum Daily Emissions	190.65	684.79	761.41	4.58	369.56	104.33
<i>Existing Emissions</i>	<i>435.02</i>	<i>196.04</i>	<i>836.54</i>	<i>2.50</i>	<i>190.52</i>	<i>105.89</i>
Net Emissions (Project – Existing)	-244.37	488.75	-75.13	2.07	179.04	-1.56
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	YES	NO	NO	YES	NO
Winter						
Area Source	132.43	0.03	3.79	2.90E-04	0.01	0.01
Energy Source	1.50	13.66	11.48	0.08	1.04	1.04
Mobile Source	50.36	692.21	604.40	4.27	367.85	102.90
On-Site Equipment Source	3.18	5.43	20.39	0.11	0.20	0.20
Total Maximum Daily Emissions	187.48	711.33	640.05	4.46	369.10	104.15
<i>Existing Emissions</i>	<i>433.74</i>	<i>202.89</i>	<i>800.17</i>	<i>2.46</i>	<i>190.41</i>	<i>105.85</i>
Net Emissions (Project – Existing)	-246.27	508.45	-160.12	2.00	178.70	-1.69
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	YES	NO	NO	YES	NO

Source: CalEEMod operational-source emissions are presented in Appendices 3.3 and 3.5 of the AQIA prepared by Urban Crossroads.

Construction Mitigation

As stated above, Mitigation Measure (MM) **AQ-1** is recommended to reduce the severity of the impacts. After implementation of MM **AQ-1**, Project construction-source emissions of NO_x and PM₁₀ would continue to exceed SCAQMD thresholds. As such, even with application of MM **AQ-1**, Project construction-source emissions impacts would be significant and unavoidable. Following receipt of comments on the AGSP from the SCAQMD, twelve (12) mitigation measures were added to the single mitigation measure identified in Appendix 1 of Volume 2. All construction mitigation measures are discussed in further detail in Section 4.4.7, Mitigation Measures.

All of the listed mitigation measures shall be implemented to minimize construction impacts to the greatest extent feasible. The above measures would further reduce construction-related contributions to significant air quality emissions to the greatest extent feasible for a project of this type. In whole, fugitive dust impacts would be greatly minimized through implementation of the above measures. Additionally, energy related air quality emissions would be minimized through the above mitigation measures through use of reduced emissions construction equipment. Finally, future AGSP developments would be required to utilize “Super-Compliant” low VOC paints, which will minimize VOC emissions. However, the above measures would not fully reduce significant construction-related air quality emissions for NO_x and PM₁₀, which would exceed SCAQMD thresholds even with the above measures.

Operational Mitigation

It should be noted that the majority of the Project's NO_x and PM₁₀ emissions are derived from vehicle usage. Since the Lead Agency has only minimal regulatory authority to control tailpipe emissions, only limited, feasible mitigation measures exist that would reduce these emissions to less than significant levels.

Although the Project would implement the mitigation measures listed below, it should be noted that there is no way to quantify these reductions in CalEEMod. Moreover, no additional feasible mitigation measures have been identified that would further reduce these emissions to levels that are less than significant. As noted, the majority of emissions would be generated from the mobile activities by vehicles that cannot be easily mitigated. The Lead Agency cannot substantively or materially affect reductions in Project mobile-source emissions beyond the regulatory requirements and mitigation measures identified herein.

Additionally, Transportation Demand Management (TDM) measures implemented as mitigation for transportation VMT impacts would act to generally reduce vehicle-source emissions. The efficacy of TDMs and any resulting emissions reductions would be dependent on as yet-unknown building tenants and final site plan designs. Accordingly, emissions reductions resulting from implementation of TDMs are not quantified within the air quality analysis. Even with application of mitigation measures and implementation of TDMs, Project operational-source emissions impacts are forecast to be significant and unavoidable. However, the measures listed below shall be implemented by future development under the AGSP, where applicable, to minimize operational air quality emissions to the greatest extent feasible:

Level of Significance: Significant and Unavoidable

AQ-3 Would the project expose sensitive receptors to substantial pollutant concentrations?

Localized Significance

Background on Localized Significance Threshold (LST) Development

This analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology (LST Methodology)*. The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). Collectively, these are referred to as Localized Significance Thresholds (LSTs).

The significance of localized emissions impacts depends on whether ambient levels in the vicinity of any given project are above or below State standards. In the case of CO and NO₂, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a state or federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM₁₀ and PM_{2.5}; both of which are non-attainment pollutants.

The SCAQMD established LSTs in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4¹¹. LSTs represent the maximum emissions from a project that will not cause

⁸ "Preliminary Warehouse Emission Calculations" cites 39.9-mile trip length for heavy-heavy trucks. As a conservative measure, a trip length of 40 miles has been utilized for all trucks for the purpose of this analysis. SCAQMD defines Environmental Justice as "...equitable environmental policymaking and enforcement to protect the

or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses.

LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. To address the issue of localized significance, the SCAQMD adopted LSTs that show whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects. The analysis makes use of methodology included in the *LST Methodology*.

Applicability for LSTs for the Project

The SCAQMD established LSTs in response to the SCAQMD Governing Board’s Environmental Justice Initiative I-4. LSTs represent the maximum emissions from a project that will not cause or contribute to exceeding the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses.

SCAQMD developed LSTs to determine if emissions of NO₂, CO, PM₁₀, and PM_{2.5} generated at a project site (offsite mobile-source emissions are not included in the LST analysis) would expose sensitive receptors to substantial concentrations of criteria air pollutants. Table 4.4-15 shows the localized significance thresholds for projects in SCAQMD’s jurisdiction.

To assist lead agencies, SCAQMD developed screening-level LSTs to back-calculate the mass amount (lbs. per day) of emissions generated onsite that would trigger the hourly levels shown in Table 4.4-15 for projects under five acres. LSTs represent the maximum emissions at a project site that are not expected to cause or contribute to exceeding the most stringent federal or state AAQS. LSTs are based on the ambient concentrations of that pollutant within the project SRA and the distance to the nearest sensitive receptor. However, consistent with SCAQMD guidance an LST analysis can only be conducted at a project-level, and quantification of LSTs is not applicable for this program-level environmental analysis.

**Table 4.4-15
 SCAQMD LOCALIZED SIGNIFICANCE THRESHOLD^A**

Air Pollutant (Relevant AAQS)	Concentration
1-hour CO Standard (CAAQS)	20 ppm
8-hour CO Standard (CAAQS)	9.0 ppm
1-hour NO ₂ Standard (CAAQS)	0.18 ppm
Annual Average NO ₂ Standard (CAAQS)	0.03 ppm
24-Hour PM ₁₀ Standard – Construction (SCAQMD)	10.4 µg/m ³
24-Hour PM _{2.5} Standard – Construction (SCAQMD)	10.4µg/m ³
24-Hour PM ₁₀ Standard – Operation (SCAQMD)	2.5 µg/m ³
24-Hour PM _{2.5} Standard – Operation (SCAQMD)	2.5 µg/m ³
Annual Average PM ₁₀ Standard (SCAQMD)	1.0 µg/m ³

health of all residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution.”

^A: Threshold is based on SCAQMD Rule 403. Since SCAB is in nonattainment for PM₁₀ and PM_{2.5}, the threshold is established as an allowable change in concentration. Therefore, background concentration is not relevant.

CO “Hot Spot Analysis”

As discussed below, the Project would not result in potentially adverse CO concentrations or “hot spots.” Further, detailed modeling of Project-specific CO “hot spots” is not needed to reach this conclusion. An adverse CO concentration, known as a “hot spot”, would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. At the time of the SCAQMD’s *CEQA Air Quality Handbook (1993) (1993 CEQA Handbook)*, the SCAB was designated nonattainment under the CAAQS and NAAQS for CO.

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment.

To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO “hot spot” analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. This “hot spot” analysis did not predict any violation of CO standards, as shown on Table 4.4-16.

**Table 4.4-16
 CO MODEL RESULTS**

Intersection Location	CO Concentrations (ppm)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire Boulevard/Veteran Avenue	4.6	3.5	3.7
Sunset Boulevard/Highland Avenue	4	4.5	3.5
La Cienega Boulevard/Century Boulevard	3.7	3.1	5.2
Long Beach Boulevard/Imperial Highway	3	3.1	8.4

Notes: Federal 1-hour standard is 35 ppm and the deferral 8-hour standard is 9.0 ppm.

Based on the SCAQMD's *2003 Air Quality Management Plan (2003 AQMP)* and the *1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan)*, peak CO concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example, 9.3 ppm 8-hour CO concentration measured at the Long Beach Boulevard and Imperial Highway intersection (highest CO generating intersection within the “hot spot” analysis), only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 8.6 ppm were due to the ambient air measurements at the time the *2003 AQMP* was prepared. In contrast, the ambient 8-hour CO concentration within the Project study area is estimated at 1.1 ppm—1.3 ppm. Therefore, even if the traffic volumes for the Project were double or even triple of the traffic volumes generated at the Long Beach Boulevard and Imperial Highway intersection, coupled with the on-going

improvements in ambient air quality, the Project would not be capable of resulting in a CO “hot spot” at any study area intersections.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour (vph)—or 24,000 vph where vertical and/or horizontal air does not mix—in order to generate a significant CO impact. Traffic volumes generating the CO concentrations for the “hot spot” analysis is shown on Table 4.4-17. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which has a daily traffic volume of approximately 100,000 vph and AM/PM traffic volumes of 8,062 vph and 7,719 vph respectively. The 2003 AQMP estimated that the 1-hour concentration for this intersection was 4.6 ppm; this indicates that, should the daily traffic volume increase four times to 400,000 vehicles per day, CO concentrations (4.6 ppm x 4= 18.4 ppm) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm)¹².

**Table 4.4-17
 TRAFFIC VOLUMES**

Intersection Location	Peak Traffic Volumes (vph)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Wilshire Boulevard/Veteran Avenue	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset Boulevard/Highland Avenue	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega Boulevard/ Century Boulevard	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674
Long Beach Boulevard/ Imperial Highway	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

Source: 2003 AQMP

As summarized on Table 4.4-18 below, the intersection of Victoria Avenue and Highland Avenue would generate the highest AM/PM traffic volumes of 2,406 vph and 3,447 vph respectively. As such, Project-related traffic volumes are less than the traffic volumes identified in the 2003 AQMP. The Project considered herein would not produce the volume of traffic required to generate a CO “hot spot” either in the context of the 2003 Los Angeles hot spot study or based on representative BAAQMD CO threshold considerations. Therefore, CO “hot spots” are not an environmental impact of concern for the Project. Localized air quality impacts related to mobile-source emissions would therefore be less than significant

¹² Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm)

**Table 4.4-18
 PROJECT PEAK HOUR TRAFFIC VOLUMES**

Intersection Location	Peak Traffic Volumes (vph)				
	Northbound (AM/PM)	Southbound (AM/PM)	Eastbound (AM/PM)	Westbound (AM/PM)	Total (AM/PM)
SR-210 Eastbound Off-Ramp/ Highland Avenue	0/0	1,041/1,173	277/694	294/546	1,612/2,413
Driveway/Highland Avenue & SR-210 Westbound Off-Ramp	372/391	7/12	879/1353	902/1462	2,160/3,218
Victoria Avenue/Highland Avenue	498/472	549/906	902/1328	457/741	2,406/3,447
Victoria Avenue/Pacific Street	488/571	432/392	565/617	461/338	1,946/1,918

Potential Impacts to Sensitive Receptors

Friant Ranch Case

In December 2018, in the case of *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, the California Supreme Court held that an Environmental Impact Report's (EIR) air quality analysis must meaningfully connect the identified air quality impacts to the human health consequences of those impacts, or meaningfully explain why that analysis cannot be provided. SCAQMD has among the most sophisticated air quality modeling and health impact evaluation capability of any of the air districts in the State, and thus it is uniquely situated to express an opinion on how lead agencies should correlate air quality impacts with specific health outcomes

The SCAQMD discusses that it may be infeasible to quantify health risks caused by projects similar to the proposed Project, due to many factors. It is necessary to have data regarding the sources and types of air toxic contaminants, location of emission points, velocity of emissions, the meteorology and topography of the area, and the location of receptors (worker and residence). The Brief states that it may not be feasible to perform a health risk assessment for airborne toxics that will be emitted by a generic industrial building that was built on "speculation" (i.e., without knowing the future tenant(s)). Even where a health risk assessment can be prepared, however, the resulting maximum health risk value is only a calculation of risk--it does not necessarily mean anyone will contract cancer as a result of the Project. The Brief also cites the author of the CARB methodology, which reported that a PM2.5 methodology is not suited for small projects and may yield unreliable results. Similarly, SCAQMD staff does not currently know of a way to accurately quantify O3-related health impacts caused by NOX or VOC emissions from relatively small projects, due to photochemistry and regional model limitations. The Brief concludes, with respect to the Friant Ranch EIR, that although it may have been technically possible to plug the data into a methodology, the results would not have been reliable or meaningful.

On the other hand, for extremely large regional projects (unlike the proposed Project), the SCAQMD states that it has been able to correlate potential health outcomes for very large emissions sources – as part of their rulemaking activity, specifically 6,620 lbs./day of NOX and 89,180 lbs./day of VOC were expected to result in approximately 20 premature deaths per year and 89,947 school absences due to O3.

The proposed Project does not generate anywhere near 6,620 lbs/day of NOX or 89,190 lbs/day of VOC emissions. The proposed Project would generate up to 605.56 lbs/day of NOX during construction and 508.45 lbs/day of NOX during operations (9.1% and 7.7% of 6,620 lbs/day, respectively). Additionally, the proposed Project would also generate a maximum of 68.45 lbs/day

of VOC emissions during construction and 190.65 lbs/day of VOC emissions during operations (0.07% and 0.21% of 89,190 lbs/day, respectively). Therefore, the proposed Project's emissions are not sufficiently high enough to use a regional modeling program to correlate health effects on a basin-wide level.

As the future Project's emissions will comply with federal, state, and local air quality standards, the proposed Project's emissions are not sufficiently high enough to use a regional modeling program to correlate health effects on a basin-wide level, and would not provide a reliable indicator of health effects if modeled.

Health Risk Assessment

As a result of the scale of the proposed AGSP, and the lack of specific project level proposals for development under the AGSP, it is not possible to perform a Health Risk Assessment (HRA) that would accurately reflect risk to sensitive receptors within the project area. While the whole of the AGSP is anticipated to result in some health risk to sensitive receptors in the project area, the extent of such risks is unknown. Therefore, mitigation is required to ensure that future projects both prepare project-specific HRAs and implement project-specific mitigation to minimize health risk to nearby sensitive receptors.

Mitigation Measures: Mitigation measure **AQ-15**, listed below, would ensure that project specific Health Risk Assessments are prepared for Projects that generate equal to or greater than 100 average daily diesel truck trips or generate other toxic air contaminants (TACs) within a 100-foot buffer of the nearest sensitive receptor. Additionally, **AQ-15** would require each individual project to implement mitigation to minimize health risk to below significance thresholds. No further mitigation is required.

Level of Significance: Less Than Significant With Mitigation Incorporated

AQ-4 Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The potential for the Project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

The Project does not presently contain land uses typically associated with emitting objectionable odors. Although please note that the Sterling Natural Resources Center, a new wastewater treatment operation constructed by East Valley Water District (EVWWD), will soon begin operations at the northeast corner of Del Rosa Avenue and 5th Street. Potential odor sources associated with the proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary

storage of typical solid waste (refuse) associated with the proposed Project's (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with existing solid waste regulations in both cities. The proposed Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisance odors. Therefore, odors associated with the proposed Project construction and operations would be less than significant and no mitigation is required. Procedures are already in place to address odor generating activities within the AGSP.

Mitigation Measures: No mitigation required.

Level of Significance: Less Than Significant Impact.

4.4.7 Mitigation Measures

The following mitigation measures have been developed for assignment to future specific project. As each City reviews individual project application in the future, those measures identified as applicable to a specific project, both construction and operation, will be assigned to a proposed project. This extensive list of measures was compiled based on previous input from SCAQMD for project in the general area.

- AQ-1:** *The Construction Contractor shall ensure that off-road diesel construction equipment complies with Environmental Protection Agency (EPA)/California Air Resources Board (CARB) Tier 4 emissions standards or equivalent and shall ensure that all construction equipment is tuned and maintained in accordance with the manufacturer's specifications. This measure will apply to all future projects.*
- AQ-2:** *Future AGSP Developments shall be required to utilize "Super-Compliant" low VOC paints which have been reformulated to exceed the regulatory VOC limits put forth by SCAQMD's Rule 1113. Super-Compliant low VOC paints shall be no more than 10g/L of VOC. Alternatively, Future AGSP Development may utilize building materials that do not require the use of architectural coatings. This measure will apply to all future projects under the AGSP.*
- AQ-3:** *Plans, specifications and contract documents shall require that a sign must be posted on-site stating that construction workers shall not allow diesel engines to idle in excess of five minutes.*
- AQ-4:** *During site preparation and grading activity all actively graded areas within each proposed project site shall be watered at two (2) hour watering intervals (e.g., 4 times per day) or a movable sprinkler system shall be in place.*
- AQ-5:** *Future AGSP Developments shall be required to install gravel pads at all access points to prevent tracking of mud onto public roads.*
- AQ-6:** *Future AGSP Developments shall be required to install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (e.g., Install wheel shakers, wheel washers, and limit site access).*

- AQ-7:** *Future AGSP Developments shall be required to cover all materials transported off- or on- to the site. Materials shall be effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.*
- AQ-8:** *Future AGSP Developments shall be required to sweep all streets at least once a day using SCAQMD Rule 1186 certified street sweepers if visible soil materials are carried to adjacent streets.*
- AQ-9:** *Future AGSP Developments shall be required to post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action to a complaint within 24 hours.*
- AQ-10:** *Future AGSP Developments shall be required to formulate a high wind response plan for enhanced dust control if winds are forecast to exceed 15 mph in any upcoming 24-hour period.*
- AQ-11:** *Future AGSP Developments shall be required to use electric or alternative fueled construction equipment where technically feasible and/or commercially available, where the electric or alternatively fueled equipment can perform adequately when compared to gasoline or diesel fueled equipment.*
- AQ-12:** *Future AGSP Developments shall be required to use zero emission (ZE) or near-zero emissions (NZE) trucks, if and when feasible; at a minimum, future development shall be required to use 2010 and newer haul trucks (e.g., including material delivery trucks and soil import/export, and trucks required for operation). Once required to comply with State law, or otherwise comply with SCAQMD Rules, ZE and NZE on-road haul trucks shall be mandatory for use by future AGSP Development; until this point, the use of ZE and NZE on-road haul trucks shall be required once such vehicles are readily available, and comparable in cost (within a 20% margin) to non-ZE/NZE on-road haul trucks.*
- AQ-13:** *During the City's review process for individual project applications within the Specific Plan, the individual projects shall conduct modeling of the regional and the localized emissions (NO_x, CO, PM₁₀, and PM_{2.5}) associated with the construction activities estimated for any proposed individual developments one acre or larger. If the modeling shows that emissions would exceed the SCAQMD's significance thresholds for those emissions, applicable mitigation would be required. For implementing projects within each City, the individual projects shall be responsible for submitting a focused project-level air quality assessment that includes the modeling of localized on-site emissions associated with daily grading activities anticipated for the proposed individual projects. A regional and localized emissions analysis will be required for all projects subject to CEQA discretionary actions.*
- AQ-14:** *During the City's review process for individual project applications within the Specific Plan, the individual projects shall conduct modeling of the regional and the localized emissions (NO_x, CO, PM₁₀, and PM_{2.5}) associated with the operational activities estimated for the proposed individual developments one acre or larger. If the modeling shows that emissions would exceed the SCAQMD's significance thresholds for those emissions, applicable mitigation would be required. For implementing projects within each City, the individual projects shall be responsible for submitting a focused project-level air quality assessment that includes the modeling of localized on-site emissions associated with daily grading activities anticipated for the proposed individual projects. A regional and localized emissions analysis will be required for all projects subject to CEQA discretionary actions.*

- AQ-15:** *During each City's review process for individual project applications within the Specific Plan, projects that generate more than 100 diesel truck trips per day or projects that generate other toxic air contaminants (TACs) within a 100-foot buffer of the nearest sensitive receptor, shall submit a health risk assessment (HRA) to the City prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of CEQA and the SCAQMD. If the HRA shows that the incremental cancer risk of an individual Project exceeds 10 in 1 million or the appropriate noncancer hazard index exceeds 1.0, the individual Project's will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Uses that do not generate a significant number of average daily truck trips (less than 100 truck trips), including but not limited to development of hotel uses, and commercial uses supporting the AGSP development such as coffee shops, fast food restaurants, restaurants, etc.) and excluding fueling stations shall be exempt from preparing an HRA.*
- AQ-16:** *Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable 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 (5) minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," or the parking brake is engaged; and 3) telephone numbers of the building facilities manager and the CARB to report violations. Prior to the issuance of an occupancy permit, the Lead Agency shall conduct a site inspection to ensure that the signs are in place.*
- AQ-17:** *Prior to tenant occupancy, the Project Applicant or successor in interest shall provide documentation to the Lead Agency demonstrating that occupants/tenants of the Project site have been provided documentation on funding opportunities, such as the Carl Moyer Program, that provide incentives for using cleaner-than-required engines and equipment.*
- AQ-18:** *The minimum number of automobile electric vehicle (EV) charging stations required by the California Code of Regulations (CCR) Title 24 shall be provided. As agreed by the Applicant and Lead Agency, final designs of Project buildings shall include electrical infrastructure sufficiently sized to accommodate the potential installation of additional auto and truck EV charging stations.*
- AQ-19:** *As agreed to by the Applicant and Lead Agency, final Project designs shall provide for installation of conduit in tractor trailer parking areas for the purpose of accommodating potential installation of EV truck charging stations.*
- AQ-20:** *Future AGSP Developments shall be required to utilize on-road heavy-duty diesel trucks with a gross vehicle weight rating greater than 14,000 pounds with a 2010 model year engine or newer or to be equipped with a particulate matter trap, as available.*
- AQ-21:** *Future AGSP uses shall be operated in a manner such that no offensive odor is perceptible at or beyond the property line of that use, as determined by SCAQMD.*
- AQ-22:** *Future AGSP Developments shall be required to comply with the following: All on-site outdoor cargo-handling equipment (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) and all on-site indoor forklifts will be powered by electricity where feasible.*
- AQ-23:** *Future AGSP Developments shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating*

more than three minutes in any 1 hour that is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.

- AQ-24:** *Future AGSP Developments shall not discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property.*
- AQ-25:** *Future AGSP Developments shall be required to comply with South Coast Air Quality Management District 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. Applicable dust suppression requirements from Rule 403 are summarized below.*
- *Nontoxic chemical soil stabilizers shall be applied according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).*
 - *Active sites shall be watered at least twice daily. (Locations where grading is to occur will be thoroughly watered prior to earthmoving.)*
 - *All trucks hauling dirt, sand, soil, or other loose materials shall be covered, or at least 0.6 m (2 ft) of freeboard (vertical space between the top of the load and top of the trailer) maintained in accordance with the requirements of California Vehicle Code (CVC) Section 23114.*
 - *Construction access roads shall be paved at least 30 m (100 ft) onto the site from the main road.*
 - *Traffic speeds on all unpaved roads shall be reduced to 15 mph or less.*
- AQ-26:** *Future AGSP Developments shall be required to comply with South Coast Air Quality Management District Rule 1113 – Architectural Coatings. No person shall apply or solicit the application of any architectural coating within the SCAQMD with VOC content in excess of the values specified in a table incorporated in the Rule. A list of manufacturers of low/no-VOC paints is provided at the following SCAQMD website: <http://www.aqmd.gov/docs/default-source/planning/architectural-coatings/reporting-and-support-documents/rule-314-manufacturers.pdf?sfvrsn=4> All paints will be applied using either high volume low-pressure spray equipment or by hand application.*
- AQ-27:** *Future AGSP Developments shall be required to comply with South Coast Air Quality Management District Rule 1301 – General. This rule is intended to provide that pre-construction review requirements to ensure that new or relocated facilities do not interfere with progress in attainment of the NAAQS, while future economic growth within the South Coast Air Quality Management District is not unnecessarily restricted. The specific air quality goal is to achieve no net increases from new or modified permitted sources of nonattainment air contaminants or their precursors. Rule 1301 also limits emission increases of ammonia, and Ozone Depleting Compounds (ODCs) from new, modified or relocated facilities by requiring the use of Best Available Control Technology (BACT).*
- AQ-28:** *Building operators will require (by contract specifications) that equipment, including heavy-duty equipment, motor vehicles, and portable equipment, be turned off when not in use for more than 5 minutes. Truck idling shall not exceed 5 minutes in time. All facilities will post signs requiring that trucks shall not be left idling for more than 5 minutes pursuant to Title 13 of the California Code of Regulations, Section 2485, which limits idle times to not more than five minutes. Nighttime (after 10:00 PM) truck idling would not be permitted.*

- AQ-29:** *Future AGSP Developments shall be required to meet or exceed 2020 Title 24, Part 6 Standards and meet Green Building Code Standards for future structures.*
- AQ-30:** *Future AGSP Developments shall be required to utilize faucets, toilets and showers that are low-flow fixtures that would reduce indoor water demand by 20% per CalGreen Standards.*
- AQ-31:** *Future AGSP Developments shall be required to comply with a recycling program that reduces waste to landfills by a minimum 60 percent per AB 341.*
- AQ-32:** *Future AGSP Developments shall be required to utilize high-efficiency lighting that is at least 34% more efficient than standard lighting.*
- AQ-33:** *Future AGSP Developments shall be required to utilize light-colored paving and roofing materials, and encourage the use of cool or green roofs for future AGSP development.*
- AQ-34:** *Future AGSP Developments shall be required to utilize water-based or low VOC cleaning products.*
- AQ-35:** *Future AGSP Developments shall be required to coordinate with Edison to install EV Charging Stations incrementally over the life of the project as required by future demand. The initial installation of EV Charging Stations shall be determined through consultation between the Developer, Southern California Edison, and the City of Highland and/or San Bernardino.*
- AQ-36:** *Future AGSP Developments shall require trucks to utilize truck routes identified in the Airport Gateway Specific Plan. In order to enforce this requirement, truck routes will be clearly marked with trailblazer signs, so that trucks will not enter residential areas.*
- AQ-37:** *Future AGSP Developments shall be required to use or to retain a landscaping contractor(s) that uses electric landscaping equipment, if contractors with electric equipment are feasible to retain within the immediate project area.*
- AQ-38:** *Future AGSP Developments shall be required to include a contract specification in the street sweeping contract that uses electric or alternatively fueled sweepers with HEPA filters. If contractors with such equipment are not available readily in the project area, the Developer shall document this fact and the cleanest sweepers available in response to this contract specification shall be used.*
- AQ-39:** *Future AGSP Developments shall be required to maximize the planting of drought resistant trees in landscaping and parking lots and when/if recycled water becomes available in the future, landscaping shall be supported by this alternative source of water supply.*
- AQ-40:** *Future AGSP Developments shall be required to utilize only Energy Star heating, cooling, and lighting devices, and appliances.*
- AQ-41:** *Future development under the AGSP shall be designed to require internal check-in points for trucks to minimize queuing outside of the project site.*
- AQ-42:** *Future AGSP Developments shall be required to comply with the following: Any operation or activity that might cause the emission of any smoke, fly ash, dust, fumes, vapors, gases, or other forms of air pollution, which can cause damage to human health, vegetation, or other forms of property, or can cause excessive soiling on any other parcel, shall conform to the requirements of the South Coast Air Quality Management District.*

- AQ-43:** *Where future projects under the AGSP require permits from SCAQMD to operate specific types of equipment and processes, the developers/operators shall be required to obtain such permits prior to operation of the specific equipment and processes requiring the permit.*
- AQ-44:** *Future AGSP Developments that require the use of backup generators due to a delay in service from Edison shall be limited to a use period of 9 months total. No permanent use of generators shall be allowed. Prior to operation of a generator for a period of over three months, a Health Risk Assessment (HRA) to address impacts to nearby sensitive receivers shall be prepared. The HRA shall be prepared in accordance with the provisions of MM AQ-15 (If the HRA shows that the incremental cancer risk of an individual Project exceeds 10 in 1 million or the appropriate noncancer hazard index exceeds 1.0, the individual Project's will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms).*

The above measures would minimize potential construction/operational-source related contributions to significant air quality emissions to the greatest extent feasible for a Specific Plan-project of this type. In whole, fugitive dust impacts from operations would be greatly minimized through implementation of the above measures. Additionally, energy-related air quality emissions would be minimized through the above mitigation measures through use of energy efficient construction and operational equipment. Construction and operational mobile-source emissions from trucks would be minimized in residential areas as a result of limiting trucks to marked truck routes that avoid residential neighborhoods. Further, mobile-source emissions would be minimized through required use of reduced emissions generating vehicles. Maximization of landscaping, light colored roof paint, and other such measures would contribute to minimization of operational emissions, as would use of energy efficient lighting and fixtures. Ultimately, MMs **AQ-1** through **AQ-44** would minimize construction and operational source impacts from future AGSP development to the greatest extent feasible. However, ultimately the above measures would not fully reduce significant operational-source air quality emissions for NO_x and PM₁₀, which would exceed SCAQMD thresholds even with the above measures.

4.4.8 Cumulative Impacts

Level of Significance: Significant and Unavoidable

As previously shown in Table 4.4-4, the CAAQS designate the Project site as nonattainment for O₃ PM₁₀, and PM_{2.5} while the NAAQS designates the Project site as nonattainment for O₃ and PM_{2.5}.

The SCAQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*. In this report the SCAQMD clearly states (Page D-3):

"...the SCAQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for TAC emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk

(MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.

Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.”

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD’s recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which SCAB is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable.

Construction Impacts

Project construction-source air pollutant emissions would exceed the SCAQMD regional thresholds for emissions of NO_x and PM₁₀. Per SCAQMD significance guidance, NO_x impacts are considered cumulatively significant and would persist over the life of the Project. NO_x emissions are ozone precursors and would therefore have the potential to contribute considerably to existing ozone non-attainment conditions within the SCAB. As such, Project construction-source emissions would be considered significant on a project-specific and cumulative basis.

Operational Impacts

Project operational-source NO_x and PM₁₀ emissions will exceed applicable SCAQMD regional thresholds. Per SCAQMD significance guidance, these impacts at the Project level are also considered cumulatively significant and would persist over the life of the Project. NO_x emissions are ozone precursors and would therefore contribute considerably to existing ozone non-attainment conditions within the SCAB. This is a cumulatively significant impact persisting over the life of the Project based on presently available motor vehicles.

4.4.9 Unavoidable Adverse Impacts

Development associated with implementation of the proposed AGSP and cumulative development would result in unavoidable significant air quality impacts, even with the implementation of extensive mitigation measures addressed above under Section 4.4.7.

4.5 BIOLOGICAL RESOURCES

4.5.1 Introduction

This subchapter evaluates the environmental impacts to biological resources from implementation of the proposed Airport Gateway Specific Plan (AGSP) Project. These issues will be discussed below as set in the following framework:

- 4.5.1 Introduction
- 4.5.2 Regulatory Setting
- 4.5.3 Existing Conditions
- 4.5.4 Thresholds of Significance
- 4.5.5 Methodology
- 4.5.6 Environmental Impacts
- 4.5.7 Mitigation Measures
- 4.5.8 Cumulative Impacts
- 4.5.9 Significant and Unavoidable Impacts

The analysis in this subchapter is based on the following reference documents (Biological Reports each contained within Appendix 2, of Volume 2 of this DPEIR):

- *General Biological Assessment Report, Focused Burrowing Owl Survey, and Jurisdictional Delineation Inland Valley Development Agency Specific Plan Amendment.* Jericho Systems Incorporated, August 11, 2017.
- *Biological Resources Assessment Jurisdictional Delineation Report, Airport Gateway Specific Plan Project Cities of San Bernardino and Highland, CA;* Jericho Systems Incorporated, August 22, 2020.
- Goulson, D. 2010. *Bumblebees: behavior, ecology, and conservation.* Oxford University Press, New York. 317pp.
- Hatfield, R., Jepsen, S., Foltz Jordan, S., Blackburn, M., Code, Aimee. 2018. A Petition to the State of California Fish and Game Commission to List Four Species of Bumblebees as Endangered Species.
- Thorp, Robbin W., Horning Jr, Donald S., and Dunning, Lorry L. 1983. *Bumble Bees and Cuckoo Bumble Bees of California.* Bulletin of the California Insect Survey 23.
- Williams, P. H., R. W. Thorp, L. L. Richardson, and S.R. Colla. 2014. *Bumble bees of North America: An Identification guide.* Princeton University Press, Princeton, New Jersey. 208pp

The following comments from the public regarding biological resources were received during the NOP comment period or at the Scoping Meeting:

NOP Comment Letter #3 CDFW: The Comment Letter outlines the California Department of Fish and Wildlife's (CDFW) role as a Trustee Agency for fish and wildlife resources, and as a responsible agency under CEQA for specific circumstances, specifically related to regulatory authority and where a project proponent or lead agency may seek take authorization for listed species. The Comment Letter provides recommendations that the DEIR include:

- An assessment of the various habitat types located within the project footprint, as well as a map indicating the above;

- A general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the project;
- A complete, recent inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be affected, specifically in reference to the following species:
 - Burrowing owl (*Athene cunicularia*)
 - San Bernardino kangaroo rat (*Dipodomys merriami parvus*)
- A recent floristic based assessment of special status plants and natural communities;
- A thorough discussion of the regional setting and project area setting; and,
- A full accounting of open space and conservation lands within and adjacent to the project area.

Response: The purpose of the two Biological Resources Assessments (BRA) was to address potential effects of the Project to designated critical habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) or species designated as sensitive by the California Department of Fish and Wildlife (CDFW) and/or the California Native Plant Society (CNPS). Jericho assessed the open lands within the AGSP project area for sensitive species with attention focused on those State- and/or federally-listed as threatened or endangered species and California species of special concern that have been documented in the project vicinity and/or whose habitat requirements are present within the vicinity of the project site. These reports can be found within Appendix 2, of Volume 2 of this DEIR, and the analysis thereof can be found within Subsection 4.5, Biological Resources.

Under the AGSP the City Creek natural channel will remain Open Space with no proposed development or disturbance associated with the Specific Plan, and the Business Park and Industrial sections will be solidified as designated in all other areas east to the 210 Freeway and south to 3rd Street.

NOP Comment Letter #3 CDFW: The Comment Letter provides recommendations that the DEIR include the following related to direct, indirect and cumulative impacts to biological resources:

- A discussion of impacts from lighting, noise, defensible space, and human activity on wildlife-human interactions. Additionally, specifications regarding defensible space and the intended use of the vacant land within the AGSP Planning Area should be described;
- An evaluation of impacts to adjacent open space lands from both the construction of the Project and any long-term operational and maintenance needs; and,

Response: The Specific Plan area is not considered an established wildlife movement corridor or nursery site for native or migratory wildlife, because the area does not connect two or more significant habitat areas and the area is not a major feature influencing the local plant and small mammal communities. The AGSP will not create any shift in native habitat use by wildlife, alter population dynamics, or change the local species compositions. Mitigation is required to protect nesting birds as there is habitat for nesting birds and foraging raptors in the ornamental trees, California pepper trees and Eucalyptus trees found in the Planning Area.

The vacant land within the AGSP excluding ROW and floodway is about 243 acres (refer to Table 3-1). This is land that is intended for development under both the 0065ising City General Plans and the AGSP, not land that would be reserved for conservation land. The project area is not suitable for supporting biological resource conservation due to the urban nature of the Planning Area and surrounding land uses. As stated above, under the AGSP the City Creek

natural channel will remain Open Space, and the Business Park and Industrial sections will be solidified as designated in all other areas east to the 210 Freeway and south to 3rd Street.

- A discussion of potential indirect Project impacts on biological resources, including resources in areas adjacent to the project footprint;

*Response: This discussion can be found under Subsection 4.6.5, Environmental Impacts under Subchapter 4.5, Biological Resources, specifically under issue **BIO-1**. MM **BIO-1** is recommended to minimize and avoid potential impacts to BUOW. Also, to minimize potential loss of San Bernardino kangaroo rat (SBKR) or California gnatcatcher (CAGN), MM **BIO-2** shall be implemented.*

- A cumulative effects analysis developed as described under CEQA Guidelines section 15130.

Response: Cumulative impacts pertaining to biological resources can be found under Subsection 4.5.8 of Subchapter 4.5, Biological Resources.

NOP Comment Letter #3 CDFW: The Comment Letter requests that the DEIR describe and analyze a reasonable range of alternatives.

Response: Biological Resource impacts are analyzed for each of the Alternatives that have been identified by IVDA and AGSP responsible agencies. Please refer to Chapter 5, Alternatives for a discussion of the project alternatives.

NOP Comment Letter #3 CDFW: The Comment Letter indicates a list of recommended mitigations measures, including:

- A recommendation that the Lead Agency include in the analysis how appropriate avoidance, minimization, and mitigation measures will reduce indirect impacts to fully protected species.

*Response: The proposed project requires mitigation—MM **BIO-2**—to address the potential for SBKR and CAGN within the areas of the AGSP that contain suitable habitat to support such species.*

- A recommendation that the DEIR should include measures to fully avoid and otherwise protect sensitive plant communities from project-related direct and indirect impacts.

Response: No suitable environment for these species occurs within the Specific Plan area and the local Riversidean alluvial fan sage scrub (RAFSS) or riparian habitats are outside of the Specific Plan area envelope. The analysis and substantiation pertaining to this issue can be found under Subsection 4.6.5, Environmental Impacts under Subchapter 4.5, Biological Resources, specifically under issue BIO-1.

- California Species of Special Concern (CSSC) should be considered during the environmental review process, including, but not limited to: burrowing owl, American white pelican, northern harrier, loggerhead shrike, northwestern San Diego pocket mouse, and yellow warbler.

*Response: Suitable habitat for burrowing owl (BUOW) within the vacant parcels and the City Creek Bypass Channel exists. Thus, MM **BIO-1** shall be implemented to ensure that impacts to this species are minimized. None of the remaining species listed in the above comment have a potential to exist within the project.*

- A recommendation that the DEIR specify mitigation that is roughly proportional to the level of impacts, in accordance with the provisions of CEQA by providing long-term conservation value for the suite of species and habitat being impacted by the Project.

Response: Please refer to the mitigation measures and substantiation as to why such measures are necessary under Subchapter 4.5, Biological Resources, Subsections 4.5.6, Environmental Impacts and 4.5.7, Mitigation Measures.

- Restoration objectives should include protecting special habitat elements or re-creating them in areas affected by the Project; examples could include retention of woody material, logs, snags, rocks, and brush piles.

Response: Habitat restoration may be appropriate where SBKR and CAGN are impacted by a future project under the AGSP. The specific mitigations shall be determined in coordination with CDFW and the United States Fish and Wildlife Service (USFWS) upon the determination resulting from a site-specific biological survey that these species may be impacted by the proposed development.

Additionally, to compensate for the impacts to City Creek Bypass Channel, the party seeking channel modifications shall either implement onsite enhancement in the area set aside to protect stream channel habitat or acquire offsite compensatory mitigation habitat or create such habitat at a 1:1 mitigation-to-impact ratio. This habitat shall be located within the watershed.

- A recommendation to ensure protection of nesting birds;

*Response: As previously indicated, development under the AGSP may impact nesting birds. MM **BIO-4** shall be implemented to prevent adverse impacts to nesting birds for all future development proposed under the AGSP.*

- A recommendation to require that a CDFW-approved qualified biologist be retained to be onsite prior to and during all ground- and habitat-disturbing activities to move out of harm's way special status species or other wildlife of low or limited mobility that would otherwise be injured or killed from project-related activities; and,

Response: Species and habitat specific mitigation has been provided to ensure that no adverse impacts to biological resources would occur. Given that there is no potential for special status or other wildlife to exist within the whole of the area proposed to be developed under the AGSP (no primary constituent elements except in the City Creek channel which will not be disturbed), the IVDA does not believe it is necessary to ensure that no significant impacts would occur to biological resources within the AGSP Planning Area to require biological monitoring.

- A recommendation to disallow use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species.

Response: Given that there is not potential for special status or other wildlife to exist within the whole of the area proposed to be developed under the AGSP, the IVDA does not believe it is appropriate to apply this measure to the whole of the Planning Area. Where consultation with CDFW or USFWS is required as a result of the presence of CAGN and/or SBKR, this mitigation measure will be considered.

NOP Comment Letter #3 CDFW: The Comment Letter provides information regarding the California Environmental Species Act (CESA), specifically referencing the CESA-listed species have the potential to occur onsite or have previously been reported onsite: San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*).

Response: A discussion of the potential for this species to exist within the AGSP Planning Area can be found under Subsection 4.6.5, Environmental Impacts under Subchapter 4.5, Biological Resources, specifically under issue BIO-1.

NOP Comment Letter #3 CDFW: The Comment Letter provides information regarding the Lake and Streambed Alteration Program (LSA Program) as the design and construction of City Creek Bypass upgrades are likely to notify CDFW per Fish and Game Code section 1602.

*Response: A discussion of the potential regulatory requirements for upgrades and modifications to City Creek Bypass can be found under Subsection 4.6.5, Environmental Impacts under Subchapter 4.5, Biological Resources, specifically under issue BIO-2. This channel is considered a non-wetland and non-jurisdictional water of the United States under current U. S. Army Corps of Engineers regulations. It is considered a water of the State subject to regulation by the RWQCB under Porter-Cologne and Section 1602 of the California Fish and Game Code (FCG) administered by the CDFW. Improvements to this channel downstream of Victoria Avenue will require permits from these two agencies. MM **BIO-3** will be implemented if and when the City Creek Bypass Channel is disturbed.*

NOP Comment Letter #3 CDFW: The Comment Letter provides information regarding the submittal of information to the California Natural Diversity Database (CNDDDB). The Comment Letter provides information regarding CDFW filing fees.

Response: The comment is noted and is part of the record for this project for use when future development is proposed under the AGSP.

NOP Comment Letter #4 San Bernardino Valley Water Conservation District: The Comment Letter indicates that the San Bernardino Valley Water Conservation District owns properties to the east of the AGSP boundary within the Upper Santa Ana River Wash for purposes of groundwater recharge and is the Permittee for the Upper Santa Ana River Wash Habitat Conservation Plan. The Comment Letter requests that inclusion and analysis of the Upper Santa Ana River Wash Habitat Conservation Plan in the Biological Resources, Land Use & Planning, and other applicable sections.

Response: The proximity of the AGSP to the Upper Santa Ana River Wash Habitat Conservation Plan only occurs at the City Creek Channel and is acknowledged in the DEIR. However, the AGSP does not envision any activities that would impact the City Creek Channel (as opposed to the City Creek Bypass Channel). Therefore, any potential for conflict with the Wash Habitat Conservation Plan is negligible to nonexistent.

NOP Comment Letter #4 San Bernardino Valley Water Conservation District: The Comment Letter provides Wash Plan Covered Activities that may apply to the AGSP, and if applicable, the San Bernardino Valley Water Conservation District requests a discussion to be included in the DEIR.

Response: At this time, IVDA does not believe that the Wash Plan Covered Activities apply to the AGSP. Should future site-specific development require such input, the contact information provided in the Comment Letter shall be retained and provided to the developer and City within which the development is proposed.

NOP Comment Letter #4 San Bernardino Valley Water Conservation District: The Comment Letter offers to share biological data from the Wash Plan.

Response: At this time, IVDA does not believe that biological data from the Wash Plan is necessary to ensure that impacts from AGSP related activities would not adversely impact biological resources within or adjacent to the area covered under the Wash Plan. Should future site-specific development require such input, the contact information provided in the Comment Letter shall be retained and provided to the developer and City within which the development is proposed.

4.5.2 Regulatory Setting

State and local laws, regulations, plans, or guidelines that are applicable to the proposed project are summarized below.

Federal

Federal Endangered Species Act of 1973

The Federal Endangered Species Act of 1973 (16 U.S.C. 1531-1543) and subsequent amendments provide for the conservation of endangered and threatened species and the habitats on which they depend. Federally endangered species are ones facing extinction throughout all or a significant portion of its geographical range. A federally threatened species is one likely to become endangered within the foreseeable future throughout all or a significant portion of its range. The presence of any federally threatened or endangered species on a site generally imposes severe constraints on development; particularly if development would result in a “take” of the species or its habitat. The term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct. Harm in this sense can include any disturbance to habitats used by the species during any portion of its life history.

Federal Clean Water Act

Pursuant to Section 404 of the Clean Water Act, the United States Army Corps of Engineers (ACOE) regulates discharges of dredged and/or fill material into waters of the United States. “Waters of the United States” are defined in ACOE regulations at 33 C.F.R. Part 328.3(a). Navigable waters of the United States are those waters of the United States that are navigable in the traditional sense. Waters of the United States is a broader term than navigable waters of the United States and includes adjacent wetlands and tributaries to navigable waters of the United States and other waters where the degradation or destruction of which could affect interstate or foreign commerce.

The Federal Migratory Bird Treaty Act (MBTA), 50 C.F.R. Part 10, prohibits take of migratory birds. Under the MTBA, it is unlawful to “pursue, hunt, take, capture or kill; attempt to take, capture

or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product.” Implementation of the proposed Project will be required to comply with the MTBA, which prohibits the take of migratory bird species that are considered to utilize the site and their nests or eggs. In addition, Sections 3505, 3503.5, and 3800 of the California Department of Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs.

State

California Endangered Species Act

California Endangered Species Act (Fish and Game Code 2050, et seq.) (CESA) establishes that it is the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that state agencies should not approve projects which would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. CESA requires state-lead agencies to notify the California Department of Fish and Wildlife (CDFW) during the CEQA process regarding potential effects to threatened or endangered species as a CEQA Trustee Agency.

California Fish and Game Code

Section 1600 of the Fish and Game Code, regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream, or lake, which supports fish or wildlife. The Code defines a stream, including creeks and rivers, as “a body of water that flows at least periodically or intermittently through a bed or channel having surface or subsurface flow that supports or has supported riparian vegetation.” Lakes under the jurisdiction of CDFW may also include man-made features.

Local

City of San Bernardino

The City identifies the following as part of its vision for future: “Minimize impacts to biological resources and natural features from new development.” (Natural Resources and Conservation Element, P. 12-2) In the Land Use Element, the following Conservation Goals and Policies are outlined.

Lane Use Element: Goal 2.6

Control development and the use of land to minimize adverse impacts on significant natural, historic, cultural, habitat, and hillside resources.

Lane Use Element: Policy 2.6.2

Balance the preservation of plant and wildlife habitats with the need for new development through site plan review and enforcement of the California Environmental Quality Act (CEQA).

Lane Use Element: Policy 2.6.3

Capitalize on the recreational and environmental resources offered by the Santa Ana River and Cajon Wash by requiring the dedication and development of pedestrian and greenbelt linkages.

Biological Resources are discussed beginning on Page 12-3 of the Natural Resources and Conservation Element of the City General Plan. The following Goals and Policies are included under the Biological Resources topic.

Natural Resources and Conservation Element: Goal 12.1

Conserve and enhance San Bernardino’s biological resources.

Natural Resources and Conservation Element: Policy 12.1.1

Acquire and maintain current information regarding status and location of sensitive biological elements (species and natural communities) within the planning area, as shown on Figure NRC-1. [Figure NRC-1 (Potential Habitat for Sensitive Wildlife) is reproduced in this document as Figure 4.5-1.]

Natural Resources and Conservation Element: Policy 12.1.2

Site and develop land uses in a manner that is sensitive to the unique characteristics of and that minimizes the impacts upon sensitive biological resources.

Natural Resources and Conservation Element: Policy 12.1.3

Require all proposed land uses in the "Biological Resource Management Area" (BRM), Figure NRC-2, be subject to review by the Environmental Review Committee (ERC). [Figure NRC-2 (Biological Resource Areas) is reproduced in this document as Figure 4.5-2.]

Natural Resources and Conservation Element: Policy 12.1.4

Require that development in the BRM:

- a. Submit a report by a qualified professional(s) that addresses the proposed project's impact on sensitive species and habitat, especially those that are identified in State and Federal conservation programs;
- b. Identify mitigation measures necessary to eliminate significant adverse impacts to sensitive biological resources;
- c. Define a program of monitoring, evaluating the effectiveness of, and ensuring the adequacy of the specified mitigation measures; and
- d. Discuss restoration of significant habitats.

Natural Resources and Conservation Element: Goal 12.2

Protect riparian corridors to provide habitat for fish and wildlife.

Natural Resources and Conservation Element: Policy 12.2.1

Prohibit development and grading within fifty (50) feet of riparian corridors, as identified by a qualified biologist, unless no feasible alternative exists.

Natural Resources and Conservation Element: Policy 12.2.2

Generally, permit the following uses within riparian corridors:

- a. Education and research, excluding buildings and other structures;
- b. Passive (non-mechanized) recreation;
- c. Trails and scenic overlooks on public land(s);
- d. Fish and wildlife management activities;
- e. Necessary water supply projects;
- f. Resource consumptive uses as provided for in the Fish and Game Code and Title 14 of the California Administrative Code;
- g. Flood control projects where no other methods are available to protect the public safety;
- h. Bridges and pipelines where supports are not in significant conflict with corridor resources.

Natural Resources and Conservation Element: Policy 12.2.3

Pursue voluntary open space or conservation easements to protect sensitive species or their habitats.

Natural Resources and Conservation Element: Policy 12.2.4

Development adjacent to riparian corridors shall:

- a. Minimize removal of vegetation;
- b. Minimize erosion, sedimentation, and runoff by appropriate protection or vegetation and landscape;
- c. Provide for sufficient passage of native and anadromous fish as specified by the California Department of Fish and Game;
- d. Minimize wastewater discharges and entrapment;
- e. Prevent groundwater depletion or substantial interference with surface and subsurface flows; and provide for natural vegetation buffers.

Natural Resources and Conservation Element: Policy 12.2.5

Permit modification of the boundaries of the designated riparian corridors based on field research and aerial interpretation data as part of biological surveys.

Natural Resources and Conservation Element: Goal 12.3

Establish open space corridors between and to protected wildlands.

Natural Resources and Conservation Element: Policy 12.3.1

Identify areas and formulate recommendations for the acquisition of property, including funding, to establish a permanent corridor contiguous to the National Forest via Cable Creek and/or Devil Canyon. The City shall consult with various federal, state and local agencies and City departments prior to the adoption of any open space corridor plan.

Natural Resources and Conservation Element: Policy 12.3.2

Seek to acquire real property rights of open space corridor parcels identified as being suitable for acquisition.

Natural Resources and Conservation Element: Policy 12.3.3

Establish the following habitat types as high-priority for acquisition as funds are available:

- a. Habitat of endangered species;
- b. Alluvial scrub vegetation;
- c. Riparian vegetation dominated by willow, alder, sycamore, or native oaks; and
- d. Native walnut woodlands.

Natural Resources and Conservation Element: Policy 12.3.4

Preserve and enhance the natural characteristics of the Santa Ana River, City Creek, and Cajon Creek as habitat areas.

Natural Resources and Conservation Element: Policy 12.3.5

Prevent further loss of existing stands of Santa Ana River Woolly-star (*Eriastrum densifolium sanctorum*) and Slender-horned Centrostegia (*Centrostegia leptoceras*).

City of Highland

In the City's General Plan "Preserving Our Natural Setting" is one of the five general themes of the General Plan. Specifically, "We have always been grateful for the natural frame within which Highland nestles between the expansive San Bernardino National Forest and the upper reaches of the Santa Ana River, just as it drops down out of the San Bernardino Mountains at Seven Oaks Dam. Some of this natural terrain defines important spaces within Highland as well" (Page 1-2, City of Highland General Plan). Two elements of the General Plan contain specific references to natural habitats, Land Use (Compatibility and Preserving Natural Resources) and Conservation and Open Space (Biological Resources). Refer to Figure 4.5-3, General Plan Figure 5.1) which contains a map of sensitive biological resource in the City of Highland. Pertinent Goals and Policies regarding biological resources in the General Plan include the following.

Lane Use Element: Goal 2.6

Maintain an organized pattern of land use that minimizes conflicts between adjacent land uses.

Lane Use Element: Policy 7

Require new or expanded uses to provide mitigation or buffers, including greenbelts or landscaping, between dissimilar uses or existing uses where potential adverse impacts could occur.

Lane Use Element: Policy 9

Require landscape and/or open space buffers to maintain a natural edge for proposed private development directly adjacent to natural, public open space areas.

Lane Use Element: Goal 2.7

Encourage natural resource and open space preservation through appropriate land use policies that recognize their value and through the conservation of areas required for the protection of public health and safety.

Lane Use Element: Policy 4

Preserve areas designated as Open Space to provide for recreation, preservation of scenic and environmental values, managed production of resources (agriculture, water reclamation and conservation, mineral extraction) and protection of public safety.

Lane Use Element: Policy 5

Promote joint development and use of open space resources with adjacent jurisdictions.

Conservation and Open Space Element: Goal 5.3

Continue to work with the East Valley Water District to meet the current and future water needs of its residents (see Public Services and Facilities Element, Section 4.2).

Conservation and Open Space Element: Policy 1

To the extent possible, preserve floodplain and aquifer recharge areas in their natural condition.

Conservation and Open Space Element: Goal 5.4

Continue to preserve and enhance the water quality and natural habitat of its waterways.

Conservation and Open Space Element: Policy 1

In coordination with the East Valley Water District and the County of San Bernardino, continue to maintain and improve the hydrology and natural quality of the watersheds of Bledsoe Creek, Plunge Creek, Elder Gulch, City Creek, Sand Creek, Warm Creek, Old City Creek Overflow Channel, Bald Ridge Creek, Santa Ana Canyon, and the Santa Ana River.

Conservation and Open Space Element: Policy 2

Review and revise, as necessary, zoning and subdivision ordinance provisions related to protection of the City's watersheds, especially in areas that abut creek systems and natural vegetation and open space areas, to enhance the natural appearance of watershed areas without compromising flood control and safety considerations.

Conservation and Open Space Element: Policy 3

Cooperate with other agencies and participate in multijurisdictional efforts to improve watershed management practices.

Conservation and Open Space Element: Policy 4

Reevaluate the effect of engineering practices and specifications relative to storm channel design to avoid their appearance as "concrete ditches."

Conservation and Open Space Element: Goal 5.7

Maintain, protect and preserve biologically significant habitats, including riparian areas, woodlands and other areas of natural significance.

Conservation and Open Space Element: Policy 1

Continue participation, in cooperation with relevant agencies and jurisdictions, in the preparation, planning and implementation of Habitat Conservation Plans and preservation areas.

Conservation and Open Space Element: Policy 2

Ensure that all development, including roads proposed adjacent to riparian and other biologically sensitive habitat, avoid significant impacts to such areas.

Conservation and Open Space Element: Policy 3

Require that new development proposed in such locations be designed to:

- Minimize or eliminate the potential for unauthorized entry into the sensitive area;
- Create buffer areas adjacent to the sensitive area, incorporating the most passive uses of the adjacent property;
- Protect the visual seclusion of forage areas from road intrusion by providing vegetative buffering;
- Provide wildlife movement linkages to water sources and other habitat areas;
- Provide native vegetation that can be used by wildlife for cover along roadsides; and
- Protect wildlife crossings and corridors.

Conservation and Open Space Element: Policy 4

Design lighting systems so as to avoid intrusion of night lighting into the sensitive area.

Conservation and Open Space Element: Policy 5

As part of the environmental review process, require that projects determined to be located within a biologically sensitive area prepare documentation on the impacts of such development along with mitigation and mitigation monitoring programs.

Conservation and Open Space Element: Policy 6

Ensure that required biological assessments are conducted in cooperation with the California Department of Fish and Game and the U.S. Fish and Wildlife Service.

Conservation and Open Space Element: Policy 7

Within existing natural and naturalized areas, preserve existing mature trees and vegetation.

Conservation and Open Space Element: Policy 8

Within rural and hillside residential areas, permit only such natural vegetation to be removed as is necessary to locate home sites, construct access roads and ensure fire safety.

Conservation and Open Space Element: Policy 9

Enforce requirements that healthy, mature individual specimen trees be preserved in place, as per the City Municipal Code.

Conservation and Open Space Element: Policy 10

Require builders and developers to prune, treat and maintain existing trees and plant new ones within future rights-of-way, public lands, common areas and development projects.

Conservation and Open Space Element: Policy 11

Enforce the tree preservation ordinance as a means of managing the preservation of trees and their removal, where necessary.

Conservation and Open Space Element: Policy 12

Require replacement at a 2:1 ratio of all mature trees (those with 24-inch diameters or greater measured 4½ feet above the ground) that are removed.

Conservation and Open Space Element: Policy 13

Develop an outreach program to schools and the community about the preservation and management of the City's rich biological resources.

4.5.3 Existing Conditions: Biological Resources

4.5.3.1 Project Setting

The purpose of the two Biological Resources Assessments (BRA) was to address potential effects of the Project to designated critical habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) or species designated as sensitive by the California Department of Fish and Wildlife (CDFW) and/or the California Native Plant Society (CNPS). Jericho assessed the open lands within the AGSP project area for sensitive species with attention focused on those State- and/or federally-listed as threatened or endangered species and California species of special concern that have been documented in the project vicinity and/or whose habitat requirements are present within the vicinity of the project site.

In addition to the BRA and focused surveys, Jericho's Regulatory Specialists conducted a Jurisdictional Delineation (JD) of the AGSP area. The purpose of the JD was to determine the extent of State and federal jurisdictional waters within the project area potentially subject to regulation by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA), Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA and

Porter Cologne Water Quality Control Act, and CDFW under Section 1602 of the California Fish and Game Code (FCG).

The AGSP specifically concerns the section of the City of Highland and City of San Bernardino located west of the 210 freeway, east of Tippecanoe Ave., north of 3rd Street, and south of 6th Street, in the eastern portion of City San Bernardino and the western portion of the City of Highland. The site is identified on the *Redlands* U.S. Geological Survey's (USGS) 7.5-minute topographic map in the southern portions of Sections 4, 5, and 6 of Township 1 South, Range 3 West. The 2020 BRA/JD extended its evaluation from Tippecanoe Avenue west along the City Creek Bypass channel until its confluence with the Warm Creek channel, just east of the Waterman Avenue/Third Street intersection. Warm Creek at this location is a concrete channel that is also called East Twin Creek.

To better explain the changes proposed to the project area by the Airport Gateway Specific Plan (AGSP), the biologists divided the Plan into four subareas as follows: City of Highland West, City of San Bernardino, City of Highland Center, and City of Highland East (see Figure 4.5-4).

City of Highland West

This section of the AGSP is bordered on the west by Tippecanoe Ave, on the north by 6th Street, the south by 3rd Street, and on the east by the city boundary between Highland and San Bernardino. Currently, this area is a mix of Vacant Land, Single Family Detached, Apartment/Condo, and Commercial uses, with Single Family Detached and Vacant Land being the primary uses, at roughly 60 percent and 20 percent of the total land use, respectively. Under the AGSP, this area would be converted to Mixed Use Business Park uses.

This section of the project contains mainly single-family residential houses, with vegetative growth being landscape ornamentals associated with the residences. An open, lined channel, City Creek Bypass channel, bisects the area below 5th Street. There are some scattered vacant lots, with the largest being on the east and west sides of the northern part of Del Rosa Drive and adjacent to the western section of the open channel. These fields are undeveloped lots that had at one point been disked and have since grown back with nonnative grasses and weeds. There are no native vegetative communities established on any of the vacant areas or residential lots in this section of the AGSP.

City of San Bernardino

A portion of the center of the Specific Plan is land under City of San Bernardino jurisdiction. This is currently mostly Vacant Land (80 percent of the area), with small amounts of Industrial, Single Family Detached, and Commercial uses existing near the intersection of 5th Street and Lankershim Avenue. This would shift under the Specific Plan to Mixed Use Business Park land uses on the southwest quarter of the area and on the northwest and center sections of the area. This section of the AGSP almost completely consists of undeveloped lots. There is a small developed section along Lankershim Avenue that has no associated vegetation or potential habitat for biological resources. The undeveloped lots to the east, west, and south of these developed areas are regularly weed-treated via the mechanical process of disking. Invasive plants, such as mustard (*Brassica sp.*) and brome (*Bromus sp.*), have overtaken these areas, rendering them unsuitable for many of the sensitive native species. Ground squirrel (*Spermophilus beecheyi*) colonies are present in these lots.

City of Highland Center

The part of the AGSP that will be referred to as City of Highland Center consists of both a section of land north of 5th Street, south of 6th Street on either side of Lankershim Avenue that is bordered on both the east and west by City of San Bernardino land, and the part of the Specific Plan east of Victoria Avenue and west of Central Avenue (again, south of 6th Street and north of 3rd Street). The area surrounded by the City of San Bernardino land is currently mostly Single Family Detached and Industrial, with some Commercial and Vacant Land. The section between Victoria Ave and Central Ave contains an Apartment/Condo complex in the northeast portion, with the rest of the land area split between Single Family Detached (mostly to the north) and Vacant Land (mostly to the south). Under the Specific Plan, all of the area surrounding Lankershim Avenue and the southern half of the Victoria Avenue through Central Avenue land would support Mixed Use Business Park land uses.

This section of the project is mostly developed around Lankershim Avenue and in the part of the Victoria Avenue to Central Avenue north of 5th Street. The area below 5th Street is mainly open lots, with the open City Creek Bypass channel cutting diagonally from the corner of 3rd Street and Victoria Avenue to near the intersection of Central Avenue and 5th Street. As with the City of San Bernardino section, the majority of the vacant land in this section is mechanically treated to keep vegetation from growing too abundantly. Non-native and invasive plants make up the majority of the plant species within this section.

City of Highland East

This section of the AGSP is bordered on the west by Central Avenue, the north by an existing open channel that comprises the City Creek Bypass channel to the east, the south by 3rd Street and the east by Interstate 210. This area is currently mostly Industrial (about 45 percent), with Open Space and Floodways taking up an additional 20 percent with the aforementioned open channel to the north and City Creek (the actual natural Creek channel) on the east. The remaining land is an almost even mix of Vacant Land, Single Family Detached, and Commercial uses.

Under the AGSP the City Creek natural channel will remain Open Space with no proposed development or disturbance associated with the Specific Plan, and the Business Park and Industrial sections will be solidified as designated in all other areas east to the 210 Freeway and south to 3rd Street.

The western and southern portions of this section of the project have been developed as an industrial area. The southern boundary of the section consists of the City Creek Bypass open channel that will need to be modified in conjunction with the implementation of the AGSP. As noted, City Creek will remain undisturbed under the AGSP.

Native habitat communities, including the Riversidean Alluvial Fan Sage Scrub (RAFSS) and Southern Riparian Scrub, are present within and along the banks of the natural City Creek. The presence of these habitats means that several sensitive and protected species have the potential to occur within those areas, including least Bell's Vireo (*Vireo bellii pusillus*), Santa Ana River woolly star (*Eriastrum densifolium* ssp. *sanctorum*), and San Bernardino kangaroo rat (*Dipodomys merriami parvus*). As stated, this area has no proposed development associated with it in the AGSP, and as such, no impacts to this area will occur due to the implementation of the AGSP. The developed areas in this section of the project do not, despite their proximity to City Creek, have any native vegetation communities present.

4.5.3.2 General Overview of Plant and Wildlife Species

According to the database queries, 49 sensitive species and habitats (13 plants, 33 animals, and 3 habitats) have been documented to in the *Redlands* USGS quadrangle. (See Appendix A of the BRA/JD Report for full list). The native sensitive habitats documented in the local vicinity are Riversidean alluvial fan sage scrub (RAFSS), Southern Willow Scrub and Southern Sycamore-Alder Riparian Woodland. None of these habitats occur within the Specific Plan area.

As per the CNDDDB and USFWS species occurrence data overlay, no sensitive species are documented within the Specific Plan area (refer to Figure 6 of the Appendix 2). However, some sensitive species including woollystar, SBKR and BUOW are documented in the literature in areas where suitable habitat occurs adjacent to the east (City Creek) and southeast corner (SBIA property and Santa Ana River) of the Specific Plan area.

Table 4.5-1 represents a compiled list of results from databases of the listed species which have been documented within approximately 3 miles of the Plan Area. A total of 10 listed species (5 plants, 5 animals) are identified. Table 4.5-1 also provides a potential to occur assessment based on the field investigations and surveyor's knowledge of the species and local ecology. Table 4.5-2 provides a complete list of State and/or federally listed threatened or endangered species CDFW designated Species of Special Concern (SSC), and otherwise Special Animals. "Special Animals" is a general term that refers to all of the taxa the CNDDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of "species at risk" or "special status species." The CDFW considers the taxa on this list to be those of greatest conservation need. Both tables are found at end of this Subchapter.

4.5.3.3 Drainages

City Creek Bypass is the only constructed drainage channel within the project area. This channel was constructed concurrent with the installation and development of former Norton Air Force Base, now the San Bernardino International Airport. It is clearly jurisdictional under the State definition of waters, but under present definitions of federal waters this intermittent stream channel may not be jurisdictional. In addition, a "Notification of Lake or Streambed Alteration" will be submitted to CDFW and a 1600 Permit will be prepared for the Project. USCOE will also be contacted regarding the potential need for a Section 404 permit. A RWQCB Water Quality permit application (401 Certification) will also be considered. Also, the RWQCB could retain jurisdiction over this channel and require a Report of Waste Discharge to be prepared and submitted.

4.5.4 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:

- BIO-1 Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

- BIO-2 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified, in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

- BIO-3 Have a substantial adverse effect on state or federally protected wetlands (including, but limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means?
- BIO-4 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- BIO-5 Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?
- BIO-6 Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

4.5.5 Methodology

This subchapter evaluates the level of adverse impact to biological resources that is forecast to occur if the project is implemented as proposed. The methodologies relied on in the following analyses includes a review of pertinent literature, a review of the California Natural Diversity Data Base (CNDDDB), field investigations, and analysis of potential impacts to biological resources. A focused/protocol survey for burrowing owl was also performed within the project area.

4.5.6 Environmental Impacts

- BIO-1 Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

Critical Habitat

According to the databases, the developable area of the Specific Plan area is not located within designated Critical Habitat (CH) and is separated from the CH for the SBKR and Santa Ana sucker (*Catostomus santaanae*) [SASU] located to the south and east of the Plan Area by the SBIA (Figure 7). The CH in the east of the Specific Plan area is currently developed.

General Habitat

Based on the field survey results, the overall conditions within the Plan Area are disturbed and degraded. The habitat within the Specific Plan area includes non-native grassland (Holland community code 42200), transitional bare areas (Holland community code 11760), and disturbed ground (Holland community code 11100). A small one-quarter acre sized vacant area located north of 5th Street, east of Central Avenue and west of City Creek in the Specific Plan area contains disturbed isolated buckwheat scrub alliance. Figure 8 of Appendix 2 identifies vegetation in the Specific Plan area. Please note that the vegetation map also serves as to where BUOW surveys were conducted. Appendix A (of Appendix 2) contains photos of typical habitat within the Specific Plan area.

The ground cover in the Plan Area generally consists of compact graded dirt, old pavement, non-native grasses, ruderal herbs, and non-native and native trees.

Adjacent to the roadways and within all of the vacant parcels, habitat consist of dense ruderal vegetation dominated by numerous non-native plant species are also found throughout the project area including tumbleweed (*Amaranthus albus*), common ragweed (*Ambrosia artemisiifolia*), non-native grasses (*Bromus* sp.), short pod mustard (*Hirschfeldia incana*), tree tobacco (*Nicotiana glauca*), fountaingrass (*Pennisetum setaceum*), date palm (*Phoenix* sp.), castor bean (*Ricinus communis*), Russian thistle (*Salsola tragus*), Peruvian pepper tree (*Schinus molle*), tamarisk (*Tamarix ramosissima*), Mexican fan palm (*Washingtonia robusta*), and Eucalyptus trees as well as numerous ornamental trees and shrubs. Native species include California buckwheat (*Eriogonum fasciculatum*), which is found at the far east of the Specific Plan area in isolated patches adjacent to the west levee of City Creek and within the City Creek Bypass Channel between City Creek downstream to Church Street, and sycamore trees (*Platanus occidentalis*), which occur sparsely scattered about the Specific Plan area.

Sensitive Plants

None of the sensitive plant species documented within the *Redlands* quadrangle have anything greater than a low potential to occur within and/or adjacent to the Plan Area because the required habitat types are absent including RAFSS, chaparral, riparian and/or brackish wetlands. The City Creek Bypass Channel does not have the hydrological regime and broad flood plain associated with the sensitive plants known locally.

Sensitive plants identified by literature review that occur within the *Redlands* quadrangle included marsh sandwort, Nevin's barberry, salt marsh bird's-beak, slender-horned spineflower, or Santa Ana River woollystar. None of these species were observed during the general floristic survey conducted by the survey team. No suitable environment for these species occurs within the Specific Plan area and the local RAFSS or riparian habitats are outside of the Specific Plan area envelope. No further investigations relative to these species are warranted or required.

General Wildlife

Birds were the most observed wildlife group during survey. Common wildlife species observed or otherwise detected on or in the vicinity of the site during the reconnaissance-level survey included mallard (*Anas platyrhynchos*), red-tailed hawk (*Buteo jamaicensis*), Anna's hummingbird (*Calypte anna*), killdeer (*Charadrius vociferus*), common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), California towhee (*Melospiza crissalis*), bushtit (*Psaltriparus minimus*).

Wildlife detections or signs included those for amphibians, reptiles, birds, and mammals. The most common wildlife observed included coyote (*Canis latrans*), California ground squirrel (*Spermophilus beecheyi*), desert cottontail (*Sylvilagus audubonii*), San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*), Great Basin fence lizard (*Sceloporus occidentalis longipes*) and side-blotched lizard (*Uta stansburiana elegans*).

Sensitive Wildlife

According to the CNDDDB, USFWS species occurrence data overlay, and other relevant literature and databases, four State and/or federally-listed threatened or endangered wildlife species are documented within three miles of the Specific Plan area. Additionally, there are several other sensitive wildlife species that are documented to occur within the vicinity of the Specific Plan area. An analysis of the likelihood for occurrence of all sensitive wildlife species is provided in Table 4.5-2. This analysis takes into account species range as well as documentation within the

vicinity of the project area. The five State and/or federally-listed threatened or endangered wildlife species documented within the proposed project area are described below, as well as the burrowing owl (*Athene cunicularia*), considered an SSC by the CDFW.

San Bernardino kangaroo rat

The San Bernardino kangaroo rat (SBKR) is one of several kangaroo rat species in its range. The Dulzura (*Dipodomys simulans*), the Pacific kangaroo rat (*D. agilis*) and the Stephens kangaroo rat (*D. stephensi*) occur in areas occupied by the SBKR, but these other species have a wider habitat range. The habitat of the SBKR is described as being confined to primary and secondary alluvial fan scrub habitats, with sandy soils deposited by fluvial (water) rather than aeolian (wind) processes. Burrows are dug in loose soil, usually near or beneath shrubs. The SBKR is confined to inland valley scrub communities, and more particularly, to scrub communities occurring along rivers, streams and drainage.

No aspect of the Specific Plan area supports habitat suitable for SBKR for the following reasons:

- The Specific Plan area is NOT located within proximity of where SBKR have been found in the last 10 years;
- The surrounding area does NOT consist of alluvial sage scrub and associated vegetation, such as RAFSS with a moderately open canopy, the California buckwheat scrub is a monotypical habitat;
- A river and floodplain bench/terrace subject to dynamic geomorphological and hydrological processes typical of fluvial systems does NOT occur in the Specific Plan area and;
- Upland areas proximal to the floodplains with suitable habitat do NOT occur nearby

Further, permitted biologist Mikael Romich (USFWS 10(A)1(a) permit # TE-068799-5) conducted a presence/absence survey for SBKR in the City Creek Bypass Channel between October 15 and 20, 2018. Results of that survey were negative for SBKR. A total of two deer mouse (*Peromyscus maniculatus*) individuals and one house mouse (*Mus musculus*) were trapped. The lack of SBKR presence during the 2018 trapping effort was not surprising because the habitat conditions within the City Creek Bypass channel are not what typify SBKR occupation and/or utilization habitat. Alluvial sage scrub and associated vegetation, such as coastal sage scrub and chamise chaparral, with a moderately open canopy is absent from the channel and the channel morphology lacks any benches, terraces or braids. The City Creek Bypass channel is not subject to a dynamic geomorphological and hydrological processes typical of fluvial systems and the adjacent upland areas proximal to City Creek Bypass do not contain habitat suitable for SBKR.

Ms. Lawrey is a permitted biologist to trap and handle SBKR (USFWS 10(A)1(a) permit #TE-094308-4) surveyed the Specific Plan area and found the overall habitat conditions unsuitable for SBKR with the exception of a small, approximately one-quarter acre sized, vacant area with remnant coastal sage scrub elements, such as buckwheat, located north of 5th Street, east of Central Avenue and west of City Creek. This habitat patch is potentially suitable to support SBKR. Aside from this small area, the Specific Plan area is separated from known populations of SBKR by active Airport operations, high volume roadways, and industrial and commercial uses. Although the potential for this species to occur is low, the small habitat patch should be investigated prior to development on it.

Riparian birds

A variety of sensitive, riparian obligate birds such as the least bell's vireo (LBVI), southwestern willow flycatcher (SWWF) and yellow-billed cuckoo (YBCU) have nesting habitats consisting of a

well-developed overstory, understory, and low densities of aquatic and herbaceous cover. The understory frequently contains dense sub-shrub or shrub thickets. These thickets are often dominated by plants such as narrow-leaf willow, mulefat, young individuals of other willow species such as arroyo willow or black willow, and one or more herbaceous species. This type of habitat is absent from the Specific Plan area. Further investigation related to LBVI, SWWF and YBCU is not warranted or recommended for this project.

California gnatcatcher

The California gnatcatcher (CAGN) is a resident (non-migratory) small songbird which typically nests and forages in coastal sage scrub vegetation in southern California year-round. CAGN occur in dynamic and successional sage scrub habitats and non-sage scrub habitats such as chaparral, grassland, riparian areas, in proximity to sage scrub habitats. The CAGN was federally listed as Threatened in 1993 and critical habitat for this species was designated by the USFWS in 2000 and revised in 2007. The primary constituent elements (PCEs) identified by the USFWS for CAGN consist of the following: (1) Dynamic and successional sage scrub habitats: Venturan coastal sage scrub, San Diegan coastal sage scrub, Riversidean sage scrub, maritime succulent scrub, RAFSS, southern coastal bluff scrub, and coastal sage-chaparral scrub in Ventura, Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties that provide space for individual and population growth, normal behavior, breeding, reproduction, nesting, dispersal and foraging; and (2) Non-sage scrub habitats such as chaparral, grassland, riparian areas, in proximity to sage scrub habitats as described for PCE 1 above that provide space for dispersal, foraging, and nesting.

Ms. Lawrey, a biologist familiar with CAGN, surveyed the Specific Plan area and found the overall habitat conditions unsuitable for CAGN with the exception of a small, less than one-acre sized, vacant area with remnant coastal sage scrub elements, such as buckwheat, located north of 5th Street, east of Central Avenue and west of City Creek. This habitat patch is only marginal for CAGN but is potentially suitable to support for them. Aside from this small area, the Specific Plan area is separated from suitable habitat for CAGN by active Airport operations, high volume roadways, and industrial and commercial uses. Although the potential for this species to occur is low, the small habitat patch should be investigated prior to development on it.

Crotch's bumble bee (CBB)

The California Fish and Game Commission recently, in September of 2022, accepted a petition to list the Crotch's bumble bee as endangered under CESA, determining the listing "may be warranted" and advancing the species to the candidacy stage of the CESA listing process. Crotch's bumble bee primarily nest in late February through late October underground in abandoned small mammal burrows but may also nest under perennial bunch grasses or thatched annual grasses, under-brush piles, in old bird nests, and in dead trees or hollow logs (Williams et al. 2014; Hatfield et al. 2018). Overwintering sites utilized by Crotch's bumble bee mated queens include soft, disturbed soil (Goulson 2010), or under leaf litter or other debris (Williams et al. 2014). As previously stated, based on the field survey results, the overall conditions within the AGSP Planning Area are disturbed and degraded. However, the same small vacant area with remnant coastal sage scrub elements such as buckwheat, located north of 5th Street, east of Central Avenue and west of City Creek that may be marginally suitable habitat for CAGN may also be suitable for this species.

The CBB is known to occur almost exclusively in California and has been described as having historically occupied grasslands and shrublands in southern to central California, but primarily in the Central Valley. It is assumed that suitable habitat may contain any of the following: (1) areas of grasslands and upland scrub that contain requisite habitat elements, such as small mammal

burrows and forage plants; (2) potential nest habitat (late February through late October) containing underground abandoned small mammal burrows, perennial bunch grasses and/or thatched annual grasses, brush piles, old bird nests, dead trees or hollow logs (Williams et al. 2014; Hatfield et al. 2015); (3) overwintering sites (November through early February) utilized by mated queens in self-excavated hibernacula potentially in soft, disturbed soil (Goulson 2010), sandy, well-drained, or loose soils, under leaf litter or other debris (Williams et al. 2014) with ground cover requisites such as barren areas, tree litter, bare-patches within short grass in areas lacking dense vegetation. While the proposed AGSP Planning Area contains some suitable habitat for BUOW, and as such contains parcels with burrows, holes, and crevices that might be suitable for CBB nests. However, given the overall disturbed nature of a majority of the AGSP Planning Area, suitable habitat for this species is anticipated to only occur within the parcel(s) containing remnant coastal sage scrub elements that would also be suitable for CAGN. Although the potential for this species to occur is low, the small habitat patch will be surveyed for this species prior to any proposed development on it.

Western Burrowing Owl (BUOW)

The federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C 703-711) provides protection for nesting birds that are both residents and migrants whether or not they are considered sensitive by resource agencies. The MBTA prohibits take of nearly all native birds. The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The direct injury or death of a migratory bird, due to construction activities or other construction-related disturbance that causes nest abandonment, nestling abandonment, or forced fledging would be considered take under federal law. The USFWS, in coordination with the CDFW administers the MBTA.

Although not a federally listed species, the BUOW is protected under the MBTA and is listed as a Migratory Birds of Conservation Concern (BCC) by the USFWS and is therefore, also recognized by the CNDBB. The western Burrowing Owl (*A.c. hypugaea*) is one of 18 New World Burrowing Owl subspecies, and one of only two in North America. The western BUOW ranges from Texas to California and north to southern Canada. Individuals of resident populations in southern California, northern Mexico, and Florida breed and overwinter in an area without a significant migration (Haug et al. 1993). BUOW are found across American open landscapes, showing activity chiefly in the daytime. In California, preferred habitat is generally typified by short, sparse vegetation with few shrubs, level to gentle topography and well-drained soils. In addition, BUOW may occur in some agricultural areas, ruderal grassy fields, vacant lots and pastures, and flood control facilities if the surrounding vegetation structure is suitable and there are useable burrows and foraging habitat in proximity.

Unique among North American raptors, the BUOW requires underground burrows or other cavities for nesting during the breeding season and for roosting and cover, year-round. Burrows used by the owls are usually dug by other species termed host burrowers. In California, California ground squirrel (*Spermophilus beecheyi*) and round-tailed ground squirrel (*Citellus tereticaudus*) burrows are frequently used by BUOW but they may use dens or holes dug by other fossorial species and/or human made structures such as cement culverts and pipes.

BUOW have a high fidelity to their birth territory and they often prefer nesting in areas of high burrow densities. Breeding pairs are easily located within the area surrounding their nests (usually 90 feet) due to their territorial behavior. They are active during the day and night and are generally observed in the early morning hours or at twilight. BUOW breeding season begins February 1 and extends to August 31. Pair formation can begin in February. Peak of the BUOW breeding

season, commonly accepted in California, occurs between April 15 and July 15. April to mid-May is when most burrowing owls are in the egg laying and incubation stages. BUOW egg incubation period is about 27-28 days Chick rearing typically occurs between May 15 and July 1. July 15 is typically considered the late nestling period when most owls are spending time above ground. The non-breeding season (September 1 to January 31). BUOW are semi-colonial and will sometimes share a burrow for incubation and chick rearing.

Following the survey protocol for BUOW within burrowing owl breeding season, no BUOW individuals or sign (burrows, surrogate burrows, feathers, whitewash, castings, prey remains, etc.) were observed within the City Creek Bypass Channel, vacant parcels or adjacent to the roads associated with the Specific Plan area therefore, BUOW is currently absent. A single BUOW was observed on the south side of the City Creek Bypass Channel near Victoria in 2021.

The habitat within the City Creek Bypass Channel and within the vacant parcels throughout the Specific Plan area remain potentially suitable for this species because of the presence of surrogate ground squirrel burrows, culvert pipes and short grasses part of the year. Future investigation of specific development sites as the Specific Plan area is developed are warranted for BUOW.

As far as BUOW, the habitat within the vacant parcels and the City Creek Bypass Channel is considered potentially suitable for burrowing owl. Per the definition provided in the 1993 and 2012 CDFG Staff Report on Burrowing Owl Mitigation, "Burrowing owl habitat generally includes, but is not limited to, short or sparse vegetation (at least at some time of year), presence of burrows, burrow surrogates or presence of fossorial mammal dens, well-drained soils, and abundant and available prey." Although there was no evidence indicating BUOW historical use or current occupation with no BUOW individuals or sign of BUOW, including feathers, casting, prey remains or whitewash being observed during the protocol survey, future surveys for BUOW would be recommended as development occurs. Therefore, mitigation measure (MM) **BIO-1** is recommended to minimize and avoid potential impacts to BUOW. Also, to minimize potential loss of SBKR, CAGN, and CBB, MM **BIO-2** is recommended. With implementation of these mitigation measures potential impacts to sensitive biological resources can be reduced to a less than significant impact.

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

The area surrounding the City Creek Bypass is primarily urbanized and is in a heavily disturbed condition. The channel bottom is primarily sandy and is periodically maintained by the SBIA; it is also primarily unvegetated and the sparse vegetation that does occur is non-native dominated by scattered tumbleweed (*Amaranthus albus*), common ragweed (*Ambrosia artemisiifolia*), non-native grasses (*Bromus* sp.), short pod mustard (*Hirschfeldia incana*), tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), Russian thistle (*Salsola tragus*), and Mexican fan palm (*Washingtonia robusta*).

No wetland or riparian habitat characteristics are present. Therefore, modifications to the channel will not impact a state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal areas) as they do not exist within the Specific Plan area. This channel is considered a non-wetland and non-jurisdictional water of the United States under current U. S. Army Corps of Engineers regulations. It is considered a water of the State subject to regulation by the RWQCB

under Porter-Cologne and Section 1602 of the California Fish and Game Code (FCG) administered by the CDFW. It originates at City Creek and terminates at the Warm Creek/Twin Creek confluence which is tributary to the Santa Ana River which is then tributary to the Pacific Ocean. Improvements to this channel downstream of Victoria Avenue will require permits from these two agencies MM **BIO-3** will be implemented if and when the City Creek Bypass Channel is disturbed. With implementation of the preceding mitigation measure potential impacts to waters of the State of California can be reduced to a less than significant impact.

BIO-3 Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means?

Please refer to the discussion under issues a) and b) above. There are no wetland or riparian resources located within the AGSP project area. No potential to adversely impact such resources exists from implementing the AGSP.

BIO-4 Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The Specific Plan area is not considered an established wildlife movement corridor or nursery site for native or migratory wildlife, because the area does not connect two or more significant habitat areas and the area is not a major feature influencing the local plant and small mammal communities. The AGSP will not create any shift in native habitat use by wildlife, alter population dynamics, or change the local species compositions. Therefore, this project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species through the Specific Plan area.

There is habitat for nesting birds and foraging raptors in the ornamental trees, California pepper trees and *Eucalyptus* trees found in the Specific Plan area. Therefore, to reduce potential impacts to nesting birds and foraging raptors at the time of development, MM **BIO-4** will be required to be implemented. With implementation of MM **BIO-4** potential impacts to nesting birds can be reduced to a less than significant impact.

BIO-5 Would the Project conflict with any local policies or ordinances protecting of biological resources, such as a tree preservation policy or ordinance?

According to the City of Highland Municipal Code (16.64.040) heritage tree preservation requires replacement at a 2:1 ratio of all mature trees (those with 24-inch diameters or greater measured 4.5 feet above the ground) that are removed by permit. The requirements for a permit state:

- 1. No person, firm, or corporation shall remove, relocate or destroy any heritage tree within the city limits, including an applicant for a building permit, without first obtaining a tree removal permit from the community development director.*
- 2. No tree removal permit shall be issued for the removal of any heritage tree on any lot associated with a proposal for development, unless all discretionary approvals have been obtained from the city.*
- 3. No tree designated as an historic landmark shall be altered, removed, relocated or destroyed by any person, firm or corporation without first obtaining a landmark alteration permit and tree removal permit.*

There are trees scattered throughout the City of Highland portion of the Specific Plan area that meet the size requirements to be considered a heritage tree. Since this ordinance must be followed, no additional mitigation is required.

In addition to the tree ordinance, both cities and the IVDA seek to control the introduction of invasive species into the project area in the future. MM **BIO-5** will be implemented to minimize introduction of invasive species to the AGSP environment. With implementation of the MM **BIO-5** potential impacts due to invasive species can be reduced to a less than significant impact.

BIO-6 **Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

There are no adopted conservation plans located within the AGSP project area. No potential to adversely impact or conflict with such plans exist from implementing the AGSP.

4.5.7 Mitigation Measures

The following biology mitigation measures have been identified for implementation in conjunction with the AGSP.

BIO-1 *A Pre-construction Burrowing Owl Survey shall be conducted by a qualified biologist at least 3 days prior to any ground disturbing activities, at any time of year. Surveys shall be completed following the recommendations and guidelines provided within the Staff Report on Burrowing Owl Mitigation (CDFG, March 2012) or most recent version by a qualified biologist. If an active burrowing owl burrow is detected within any Project disturbance area, or within a 500-foot buffer of the disturbance area, a 300-foot radius buffer zone surrounding the burrow shall be flagged, and no impacts to soils or vegetation or noise levels above 65 dBA shall be permitted while the burrow remains active or occupied. Disturbance-free buffers may be modified based on site-specific conditions in consultation with CDFW. The qualified biologist shall monitor active burrows daily and will increase buffer sizes as needed if owls show signs of disturbance. If active burrowing owl burrows are located within any work area and impact cannot be avoided, a qualified biologist shall submit a burrowing owl exclusion plan to CDFW for review and approval. The burrowing owl exclusion plan shall include permanent compensatory mitigation consistent with the recommendations in the Staff Report on Burrowing Owl Mitigation such that the habitat acreage, number of burrows and burrowing owls impacted are replaced. Passive relocation shall take place outside the nesting season (1 February to 31 August).*

BIO-2 *As part of all future applications for development under the AGSP within the habitat patch located north of 5th Street, South of 6th Street, west of State Route (SR) 210 and east of Central Avenue, biology surveys for SBKR, CAGN, and CBB shall be performed and submitted to the City of Highland. If any of these species are identified within this property, the site shall be avoided or mitigation acceptable to the City and regulatory agencies shall be provided.*

BIO-3 *Prior to issuance of grading permits within the streambed, the developer shall provide the City with regulatory permits for impacts to the City Creek Bypass Channel. To compensate for the impacts to these waters of the State, the party seeking channel modifications shall either implement onsite enhancement in the area set aside to protect stream channel habitat or acquire offsite*

compensatory mitigation habitat or create such habitat at a 1:1 mitigation-to-impact ratio. This habitat shall be located within the watershed. The regulatory permits (Regional Board Waste Discharge Requirements and CDFW 1602) may increase this compensatory ratio but the IVDA finds that this is the minimum habitat required to offset the impacts to water resources on the project site.

BIO-4 ***Bird nesting season generally extends from February 1 through September 15 in southern California and specifically, April 15 through August 31 for migratory passerine birds. To avoid impacts to nesting birds (common and special status) during the nesting season, a qualified Avian Biologist will conduct pre-construction Nesting Bird Surveys (NBS) prior to project-related disturbance to nestable vegetation to identify any active nests. If no active nests are found, no further action will be required. If an active nest is found, the biologist will set appropriate no-work buffers around the nest which will be based upon the nesting species, its sensitivity to disturbance, nesting stage and expected types, intensity and duration of disturbance. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved no-work buffer zone shall be clearly marked in the field, within which no disturbance activity shall commence until the qualified biologist has determined the young birds have successfully fledged and the nest is inactive.***

BIO-5 ***Future developers shall implement an invasive species management plan during construction of future specific projects. For project sites that are smaller than 1-acre, the developer shall utilize the City's guidelines for management of invasive species. For larger projects, greater than 1-acre, the developer shall prepare a site-specific invasive species management plan. Should invasive species be inadvertently introduced to a site, the contractor shall remove the infestation to the satisfaction of the city prior to receiving a construction completed notice.***

BIO-6 ***Future development under the AGSP shall not be allowed to utilize of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species, in the unlikely event that any such species exist within the AGSP Planning Area.***

4.5.8 Cumulative Impacts

Development of the proposed project will contribute to the change of the general area with an intensification of development substantially greater than that which presently exists on the site. The proposed project would contribute to the reduction in burrowing owl habitat and raptor foraging habitat, but relative to the intensity of existing development in the Plan area and the extent of such foraging habitat in the region (Santa Ana River and City Creek floodplains) this loss is not considered cumulatively considerable. The proposed project will not cause significant adverse cumulative effects related to the reduction of sensitive vegetation communities or wetland/riparian habitat present in the general area because there are no such communities located within the project area and the project can be implemented consistent existing regulations and with mitigation as outlined in the preceding section. Based on compliance with the required mitigation and the overall lack of any habitat to support sensitive species or a substantial wildlife population, the proposed project will not result in significant adverse biology resource impacts that rise to a cumulatively considerable level.

4.5.9 Significant and Unavoidable Impacts

As determined above, no significant and unavoidable impacts to biological resources will occur as a result of the proposed project.

Table 4.5-1
LISTED SPECIES OCCURRENCE POTENTIAL WITHIN THE ACTION AREA

Scientific Name	Common Name	Federal Status	Habitat	Potential to Occur
Mammals				
<i>Dipodomys merriami parvus</i>	San Bernardino kangaroo rat	Endangered	Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains. Needs early to intermediate seral stages.	None of the Primary Constituent Elements for this species occur on site. A small ¼ acre sized vacant area located north of 5 th Street, east of Central Avenue and west of City Creek in the Specific Plan area is potentially suitable to support SBKR. Aside from this small area, the Specific Plan area is separated from known populations of this species by active Airport operations, high volume roadways, and industrial and commercial uses. The potential for this species to occur is low .
<i>Dipodomys stephensi</i>	Stephens' kangaroo rat	Endangered	Primarily annual & perennial grasslands, but also occurs in coastal scrub & sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass and filaree. Will burrow into firm soil.	Suitable habitat for this species does not exist within the Specific Plan area. The site location is outside of the current range of this species. The potential for this species to occur is none .
Birds				
<i>Polioptila californica</i>	coastal California gnatcatcher	Threatened	Obligate, permanent resident of coastal sage scrub below 762 m in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	None of the Primary Constituent Elements for this species occur on site. A small ¼ acre sized vacant area located north of 5 th Street, east of Central Avenue and west of City Creek in the Specific Plan area is potentially suitable to support CAGN. Aside from this small area, the Specific Plan area is separated from known populations of this species by active Airport operations, high volume roadways, and industrial and commercial uses. The potential for this species to occur is low .
<i>Vireo bellii pusillus</i>	least Bell's vireo	Endangered	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 610 m. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	This species is found locally within the Santa Ana River in areas that are highly suitable for this species. The nearest location is approx. 2.5 miles to the west southwest of the Specific Plan area. Suitable habitat for this species does not exist within the Specific Plan area. The potential for this species to occur is none .

Scientific Name	Common Name	Federal Status	Habitat	Potential to Occur
<i>Empidonax traillii extimus</i>	Southwestern Willow Flycatcher	Endangered	Habitat consists of dense linear stands of riparian. Dominant species include salix lasiolepis, salix hindsiana, populus fremontii and bacharis glutinosa.	Suitable habitat for this species does not exist within the Specific Plan area. The potential for this species to occur is none .
Plants				
<i>Arenaria paludicola</i>	marsh sandwort	Endangered	Habitat consist of riparian, alluvial-fans, bogs/fens, brackish-marsh, freshwater-marsh, lake-margins.	Suitable habitat for this species does not exist within the Specific Plan area. The potential for this species to occur is none .
<i>Berberis nevinii</i>	Nevin's barberry	Endangered	Chaparral, cismontane woodland, coastal scrub, riparian scrub. On steep, N-facing slopes or in low grade sandy washes. 290-1575 m.	Suitable habitat for this species does not exist within the Specific Plan area. The potential for this species to occur is none .
<i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	salt marsh bird's-beak	Endangered	Habitat consist of riparian, alluvial-fans, bogs/fens, brackish-marsh, freshwater-marsh.	Suitable habitat for this species does not exist within the Specific Plan area. The potential for this species to occur is none .
<i>Dodecahema leptoceras</i>	slender-horned spineflower	Endangered	Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes; associates include Encelia, Dalea, Lepidospartum, etc. Sandy soils. 200-765 m.	This species is found locally within the Santa Ana River in areas that are highly suitable for this species. The nearest location is approx. 2.5 miles to the east of the Specific Plan area. Suitable habitat for this species does not exist within the Specific Plan area. The potential for this species to occur is low .
<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>	Santa Ana River woollystar	Endangered	Coastal scrub, chaparral. In sandy soils on river floodplains or terraced fluvial deposits. 180-700 m.	This species is found on the east ¼ of the Airport and to the south within the Santa Ana River in areas that are highly suitable for this species. A small ¼ acre sized vacant area located north of 5 th Street, east of Central Avenue and west of City Creek in the Specific Plan area is potentially suitable to support this species. The remainder of the Specific Plan area has no suitable habitat for this species. This species was not found during survey The potential for this species to occur is low .

**Table 4.5-2
 CNDDDB SENSITIVE SPECIES DOCUMENTED WITHIN THE REDLANDS USGS 7.5 MINUTE QUADRANGLE**

Scientific Name	Common Name	Federal/ State	Other Ranking	Habitat	Potential to Occur
<i>Accipiter cooperii</i>	Cooper's hawk	None/None	G5, S4, CDFW-WL	Cismontane woodland, Riparian forest, Riparian woodland, Upper montane coniferous forest. Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Aimophila ruficeps canescens</i>	southern California rufous-crowned sparrow	None/None	G5T3, S3, CDFW-WL	Chaparral, Coastal scrub. Resident in Southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Anniella stebbinsi</i>	southern California legless lizard	None/None	G3, S3, CDFW-SSC	Broadleaved upland forest, Chaparral, Coastal dunes, Coastal scrub. Generally, south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County. Variety of habitats; generally, in moist, loose soil. They prefer soils with a high moisture content.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Antrozous pallidus</i>	pallid bat	None/None	G5, S3, CDFW-SSC	Chaparral, Coastal scrub, Desert wash, Great Basin Grassland Great Basin scrub, Mojavean desert scrub, Riparian woodland, Sonoran desert scrub, Upper montane coniferous forest, Valley & foothill grassland. Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Arenaria paludicola</i>	marsh sandwort	Endangered/Endangered	G1, S1, 1B.1, SB_SBBG-Santa Barbara Botanic Garden	Freshwater marsh, Marsh & swamp, Wetland. Marshes and swamps. Growing up through dense mats of Typha, Juncus, Scirpus, etc. in freshwater marsh. Sandy soil. 3-170 m.	Suitable habitat does not occur on site. Potential to occur is none .
<i>Arizona elegans occidentalis</i>	California glossy snake	None/None	G5T2, S2, CDFW-SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	Suitable habitat does not occur on site. Potential to occur is low .

Scientific Name	Common Name	Federal/ State	Other Ranking	Habitat	Potential to Occur
<i>Aspidoscelis hyperythra</i>	orange-throated whiptail	None/None	G5, S2S3, CDFW-WL	Chaparral, Cismontane woodland, Coastal scrub. Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its major food: termites.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Aspidoscelis tigris stejnegeri</i>	coastal whiptail	None/None	G5T5, S3, CDFW-SSC	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland & riparian areas. Ground may be firm soil, sandy, or rocky.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Athene cunicularia</i>	burrowing owl	None/None	G4, S3, CDFW-SSC	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran-desert scrub, Valley & foothill grassland. Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Species not observed during protocol presence absence surveys. Potentially suitable habitat occurs on site. Previously documented in the City Creek Bypass Channel. Potential to occur is moderate
<i>Berberis nevini</i>	Nevin's barberry	Endangered/Endangered	G1, S1, 1B.1	Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub. Chaparral, cismontane woodland, coastal scrub, riparian scrub. On steep, N-facing slopes or in low grade sandy washes. 290-1575 m.	Suitable habitat does not occur on site. Potential to occur is none .
<i>Bombus crotchii</i>	Crotch bumble bee	None/None	G3G4, S1S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Calochortus plummerae</i>	Plummer's mariposa-lily	None/None	G4, S4, 4.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley & foothill grassland. Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest. Occurs on rocky and sandy sites, usually of granitic or alluvial material. Can be very common after fire. 60-2500 m.	Suitable habitat does not occur on site. Potential to occur is none .
<i>Carolella busckana</i>	Busck's gallmoth	None/None	G1G3, SH	Coastal dunes and Coastal scrub.	Suitable habitat does not occur on site. Potential to occur is none .

Scientific Name	Common Name	Federal/ State	Other Ranking	Habitat	Potential to Occur
<i>Centromadia pungens</i> <i>ssp. laevis</i>	smooth tarplant	None/None	G3G4T2, S2, 1B.1	Alkali playa, Chenopod scrub Meadow & seep, Riparian woodland, Valley & foothill grassland, Wetland. Valley and foothill grassland, chenopod scrub, meadows and seeps, playas, riparian woodland. Alkali meadow, alkali scrub; also in disturbed places. 5-1170 m.	Suitable habitat does not occur on site. Potential to occur is none .
<i>Chaetodipus fallax</i> <i>fallax</i>	northwestern San Diego pocket mouse	None/None	G5T3T4, S3S4, CDFW-SSC	Chaparral, Coastal scrub, Coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego County. Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Chloropyron maritimum</i> <i>ssp. maritimum</i>	salt marsh bird's-beak	Endangered/Endangered	G4, T1, S1, 1B.2	Coastal dunes, Marsh & swamp, Salt marsh, Wetland. Marshes and swamps, coastal dunes. Limited to the higher zones of salt marsh habitat. 0-10 m.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Chorizanthe parryi</i> <i>var. parryi</i>	Parry's spineflower	None/None	G3T2, S2, 1B.1	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland. Coastal scrub, chaparral, cismontane woodland, valley and foothill grassland. Dry slopes and flats; sometimes at interface of 2 vegetation types, such as chaparral and oak woodland. Dry, sandy soils. 90-1220 m.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Coccyzus americanus</i> <i>occidentalis</i>	western yellow-billed cuckoo	Threatened/Endangered	G5T2T3, S1	Riparian forest. Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Suitable habitat does not occur on site. Potential to occur is none .
<i>Crotalus ruber</i>	red-diamond rattlesnake	None/None	G4, S3, CDFW-SSC	Chaparral, Mojavean desert scrub, Sonoran-desert scrub. Chaparral, woodland, grassland, & desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Cuscuta obtusiflora</i> <i>var. glandulosa</i>	Peruvian dodder	None/None	G5T4T5, SH, 2B.2,	Marsh & swamp, Wetland. Marshes and swamps (freshwater). Freshwater marsh. 15-280 m.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Dipodomys merriami</i> <i>parvus</i>	San Bernardino kangaroo rat	Endangered/None	G5T1, S1, CDFW-SSC	Coastal scrub. Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains. Needs early to intermediate seral stages.	Suitable habitat does not occur on site. Potential to occur is low .

Scientific Name	Common Name	Federal/ State	Other Ranking	Habitat	Potential to Occur
<i>Dipodomys stephensi</i>	Stephens' kangaroo rat	Endangered/Threatened	G2, S2	Coastal scrub, Valley & foothill grassland. Primarily annual & perennial grasslands, but also occurs in coastal scrub & sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass and filaree. Will burrow into firm soil.	Suitable habitat does not occur on site. Potential to occur is none. Outside of species range
<i>Dodecahema leptoceras</i>	slender-horned spineflower	Endangered/Endangered	G1, S1, 1B.1	Chaparral, Cismontane woodland, Coastal scrub. Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes; associates include Encelia, Dalea, Lepidospartum, etc. Sandy soils. 200-765 m.	Suitable habitat does not occur on site. Potential to occur is low.
<i>Empidonax traillii extimus</i>	southwestern willow flycatcher	Endangered/Endangered	G5T2, S1	Riparian woodland. Riparian woodlands in Southern California.	Suitable habitat does not occur on site. Potential to occur is none.
<i>Eremophila alpestris actia</i>	California horned lark	None/None	G5T4Q, S4, CDFW-WL	Marine intertidal & splash zone communities, Meadow & seep. Coastal regions, chiefly from Sonoma County to San Diego County. Also, main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	Suitable habitat does not occur on site. Potential to occur is low.
<i>Eriastrum densifolium ssp. sanctorum</i>	Santa Ana River woollystar	Endangered/Endangered	G4T1, S1, 1B.1	Chaparral, Coastal scrub. Coastal scrub, chaparral. In sandy soils on river floodplains or terraced fluvial deposits. 180-700 m.	Suitable habitat does not occur on site. Potential to occur is low.
<i>Eumops perotis californicus</i>	western mastiff bat	None/None	G5T4, S3S4, CDFW-SSC	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland. Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	Suitable habitat does not occur on site. Potential to occur is low.
<i>Icteria virens</i>	yellow-breasted chat	None/None	G5, S3, CDFW-SSC	Riparian forest, Riparian scrub, Riparian woodland. Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft. of ground.	Suitable habitat does not occur on site. Potential to occur is none.
<i>Imperata brevifolia</i>	California satintail	None/None	G4, S3, 2B.1	Chaparral Coastal scrub, Meadow & seep, Mojavean desert scrub, Riparian scrub, Wetland Coastal scrub, chaparral, riparian scrub, Mojavean desert scrub, meadows and seeps (alkali), riparian scrub. Mesic sites, alkali seeps, riparian areas. 3-1495 m.	Suitable habitat does not occur on site. Potential to occur is low.

Scientific Name	Common Name	Federal/ State	Other Ranking	Habitat	Potential to Occur
<i>Lanius ludovicianus</i>	loggerhead shrike	None/None	G4, S4, CDFW-SSC	Broadleaved upland forest, Desert wash, Joshua tree woodland, Mojavean desert scrub, Pinon & juniper woodlands, Riparian woodland, and Sonoran-desert scrub Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub & washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Lasiurus xanthinus</i>	western yellow bat	None/None	G5, S3, CDFW-SSC	Desert wash. Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's pepper-grass	None/None	G5T3, S3, 4.3	Chaparral, Coastal scrub, Chaparral, coastal scrub. Dry soils, shrubland. 4-1435 m.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Malacothamnus parishii</i>	Parish's bush-mallow	None/None	GXQ, SX, 1A	Chaparral, Coastal scrub. Chaparral, coastal sage scrub. In a wash. 305-455 m.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	None/None	G5T3T4, S3S4, CDFW-SSC	Coastal scrub. Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Nyctinomops femorosaccus</i>	pocketed free-tailed bat	None/None	G4, S3, CDFW-SSC	Joshua tree woodland, Pinon & juniper woodlands, Riparian scrub, Sonoran-desert scrub. Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Rocky areas with high cliffs.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Perognathus longimembris brevinasus</i>	Los Angeles pocket mouse	None/None	G5T1T2, S1S2, CDFW-SSC	Coastal scrub. Lower elevation grasslands and coastal sage communities in and around the Los Angeles Basin. Open ground with fine, sandy soils. May not dig extensive burrows, hiding under weeds and dead leaves instead.	Suitable habitat does not occur on site. Potential to occur is low .

Scientific Name	Common Name	Federal/ State	Other Ranking	Habitat	Potential to Occur
<i>Phrynosoma blainvillii</i>	coast horned lizard	None/None	G3G4, S3S4, CDFW-SSC	Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub, Desert wash, Pinon & juniper woodlands, Riparian scrub, Riparian woodland, Valley & foothill grassland. Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Poliioptila californica californica</i>	coastal California gnatcatcher	Threatened/None	G4G5T2Q, S2, CDFW-SSC	Coastal bluff scrub, Coastal scrub. Obligate, permanent resident of coastal sage scrub below 2500 ft. in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Rana muscosa</i>	southern mountain yellow-legged frog	Endangered/Endangered	G1, S1, , CDFW-WL	Aquatic; Federal listing refers to populations in the San Gabriel, San Jacinto and San Bernardino mountains (southern DPS). Northern DPS was determined to warrant listing as endangered, Apr 2014, effective Jun 30, 2014. Always encountered within a few feet of water. Tadpoles may require 2 - 4 years to complete their aquatic development.	Suitable habitat does not occur on site. Potential to occur is none .
<i>Rhinichthys osculus</i> ssp. 3	Santa Ana speckled dace	None/None	G5T1, S1, CDFW-SSC	Aquatic, South coast flowing waters. Headwaters of the Santa Ana and San Gabriel rivers. May be extirpated from the Los Angeles River system. Requires permanent flowing streams with summer water temps of 17-20 C. Usually inhabits shallow cobble and gravel riffles.	Suitable habitat does not occur on site. Potential to occur is none .
<i>Ribes divaricatum</i> var. <i>parishii</i>	Parish's gooseberry	None/None	G4TX, SX, 1A	Riparian woodland. Riparian woodland. Salix swales in riparian habitats. 65-300 m.	Suitable habitat does not occur on site. Potential to occur is low .
Riversidian Alluvial Fan Sage Scrub	Riversidian Alluvial Fan Sage Scrub	None/None	G1, S1.1	Coastal scrub	Suitable habitat does not occur on site. Potential to occur is low .
<i>Setophaga petechia</i>	yellow warbler	None/None	G5, S3S4, , CDFW-SSC	Riparian forest, Riparian scrub, Riparian woodland. Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	Suitable habitat does not occur on site. Potential to occur is none .

Scientific Name	Common Name	Federal/ State	Other Ranking	Habitat	Potential to Occur
Southern Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest	None/None	G4, S4	Riparian forest	Absent
Southern Sycamore Alder Riparian Woodland	Southern Sycamore Alder Riparian Woodland	None/None	G4, S4	Riparian woodland	Absent
<i>Spea hammondi</i>	western spadefoot	None/None	G3, S3, CDFW-SSC	Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland. Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Taxidea taxus</i>	American badger	None/None	G5, S3, , CDFW-SSC	Many habitat types. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Thamnophis hammondi</i>	two-striped gartersnake	None/None	G4, S3S4, CDFW-SSC	Marsh & swamp, Riparian scrub, Riparian woodland, Wetland. Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft. elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	Suitable habitat does not occur on site. Potential to occur is low .
<i>Vireo bellii pusillus</i>	least Bell's vireo	Endangered/Endangered	G5T2, S2	Riparian forest, Riparian scrub, Riparian woodland. Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Suitable habitat does not occur on site. Potential to occur is none .

Coding and Terms

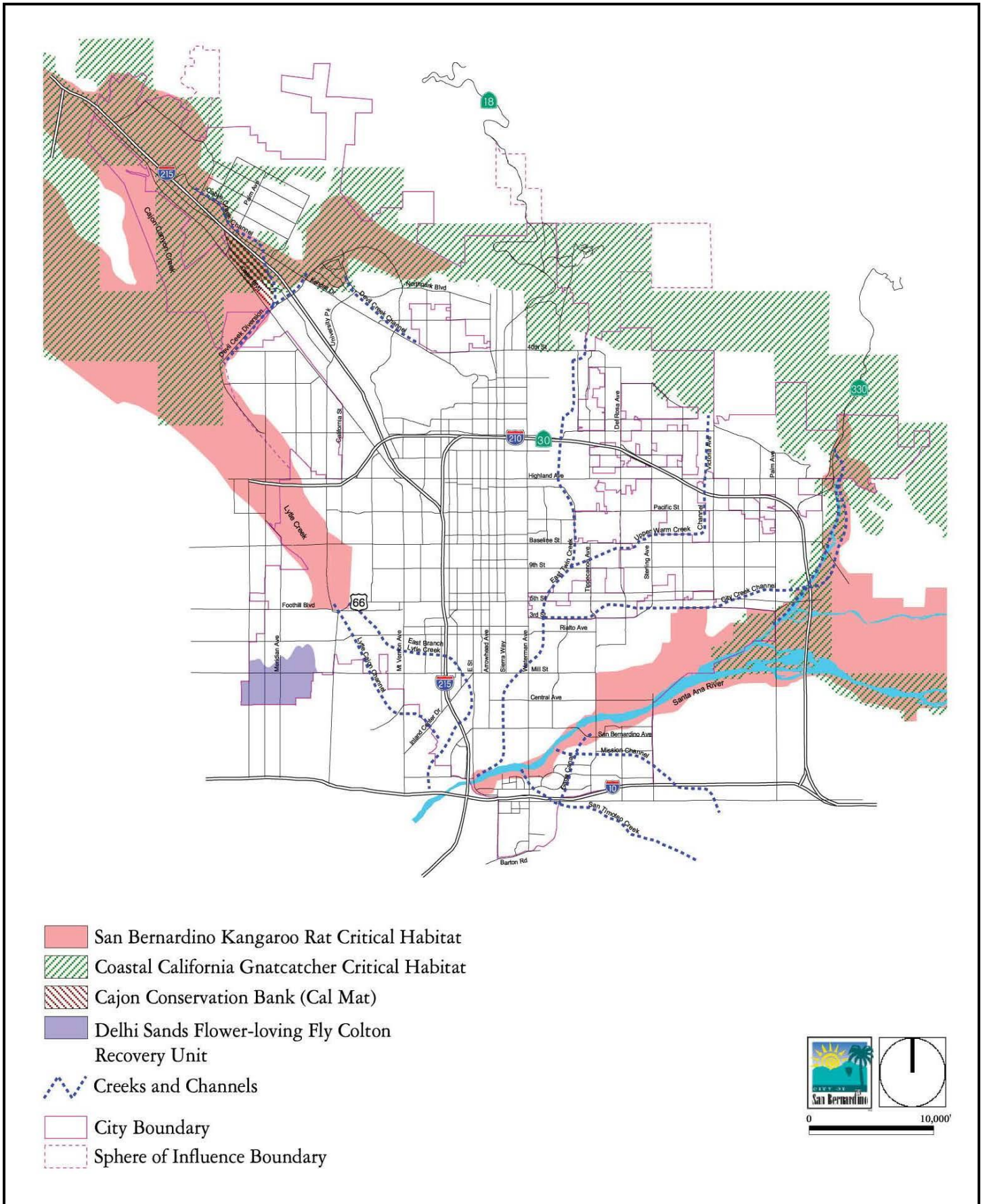
E = Endangered T = Threatened SSC = Species of Special Concern
R = Rare C = Candidate FP = Fully Protected

Federal Species of Concern: "taxa for which the U.S. Fish and Wildlife Service has information that indicates proposing to list the taxa as endangered or threatened is possibly appropriate, but for which substantial data on the biological vulnerability and threats are not currently known or on file to support the immediate preparation of rules." (Arnold). All of these species have a limited range. In fact, some species are limited to the San Bernardino Mountains area, however, they are locally common.

State Species of Special Concern: An administrative designation given to vertebrate species that appear to be vulnerable to extinction because of declining populations, limited acreages, and/or continuing threats. Raptor and owls are protected under section 3502.5 of the California Fish and Game code: "It is unlawful to take, possess or destroy any birds in the orders Falconiformes or Strigiformes or to take, possess or destroy the nest or eggs of any such bird."

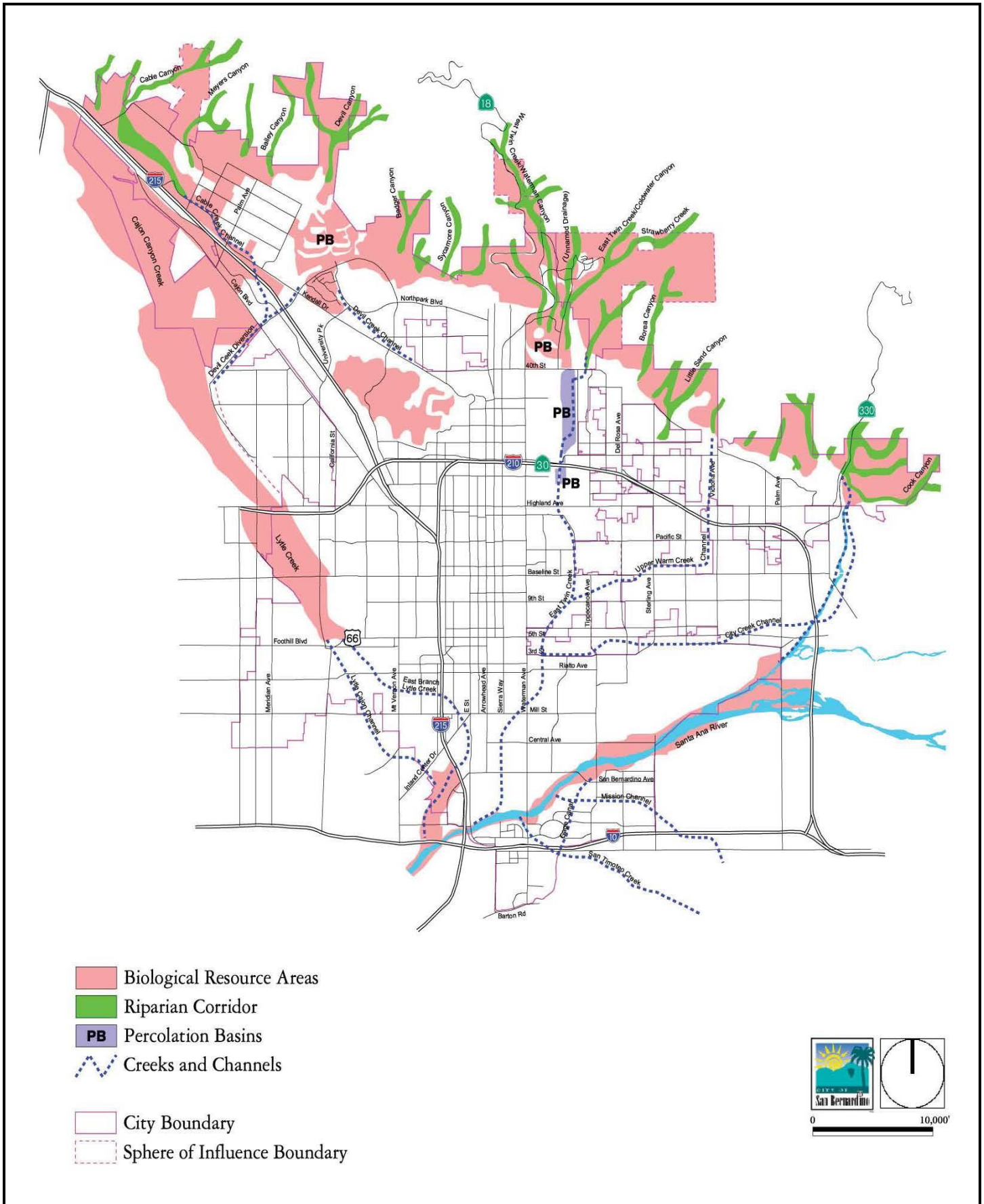
State Plant Rankings:

- S1 - less than 6 element occurrences, or less than 1,000 individuals, or less than 2,000 acres
- S2 - 6 to 20 element occurrences, or between 1,000 and 3,000 individuals, or between 2,000 and 10,000 acres
- S3 - 21 to 100 element occurrences, or between 3,000 and 10,000 individuals, or between 10,000 and 50,000 acres
- S4 - No Threat Rank
- S5 - No Threat Rank
- SH - all sites in California are historical
- .1 - very threatened
- .2 - threatened
- .3 - no current threats known



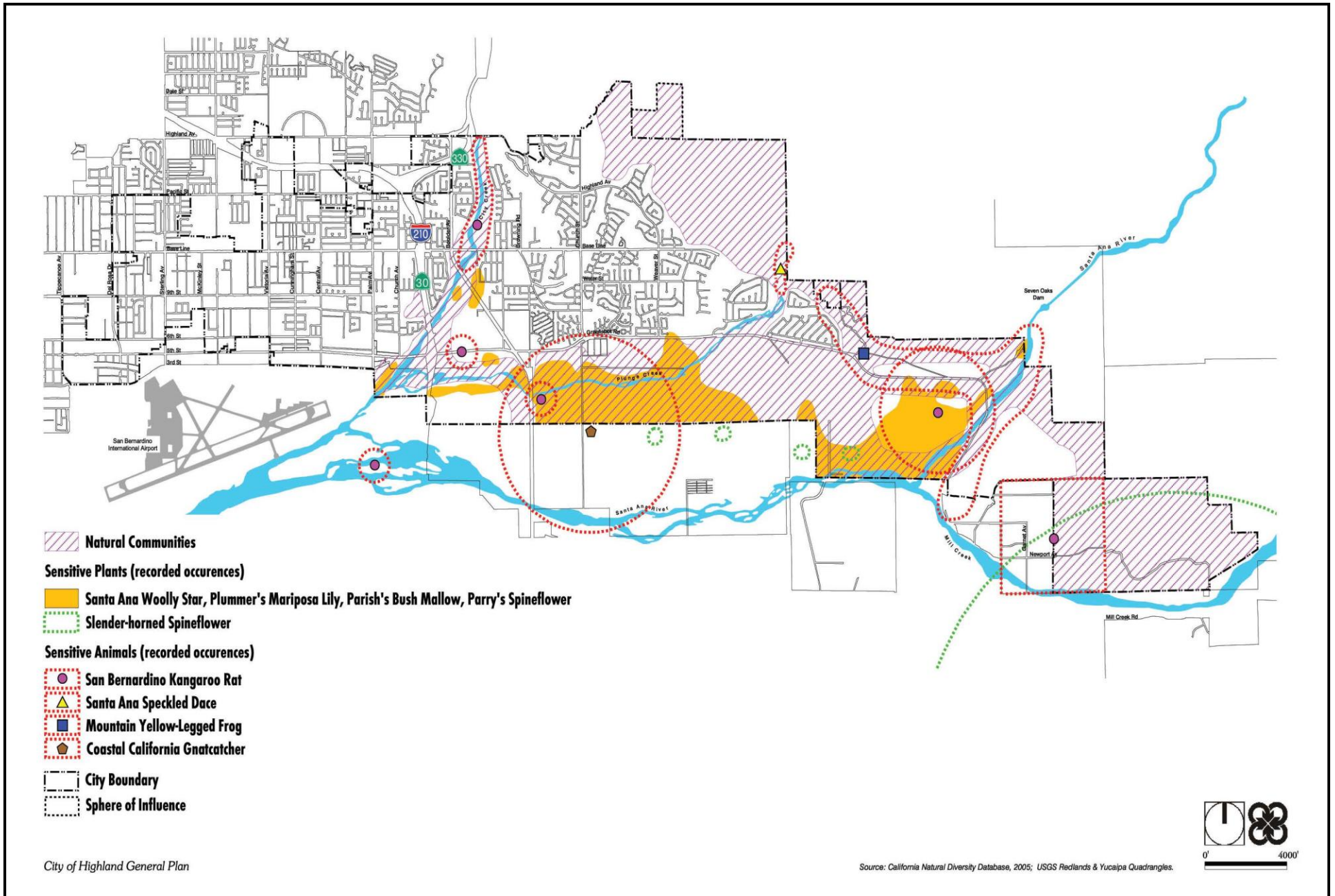
SOURCE: City of San Bernardino General Plan (Figure NRC-1)

FIGURE 4.5-1



SOURCE: City of San Bernardino General Plan (Figure NRC-2)

FIGURE 4.5-2

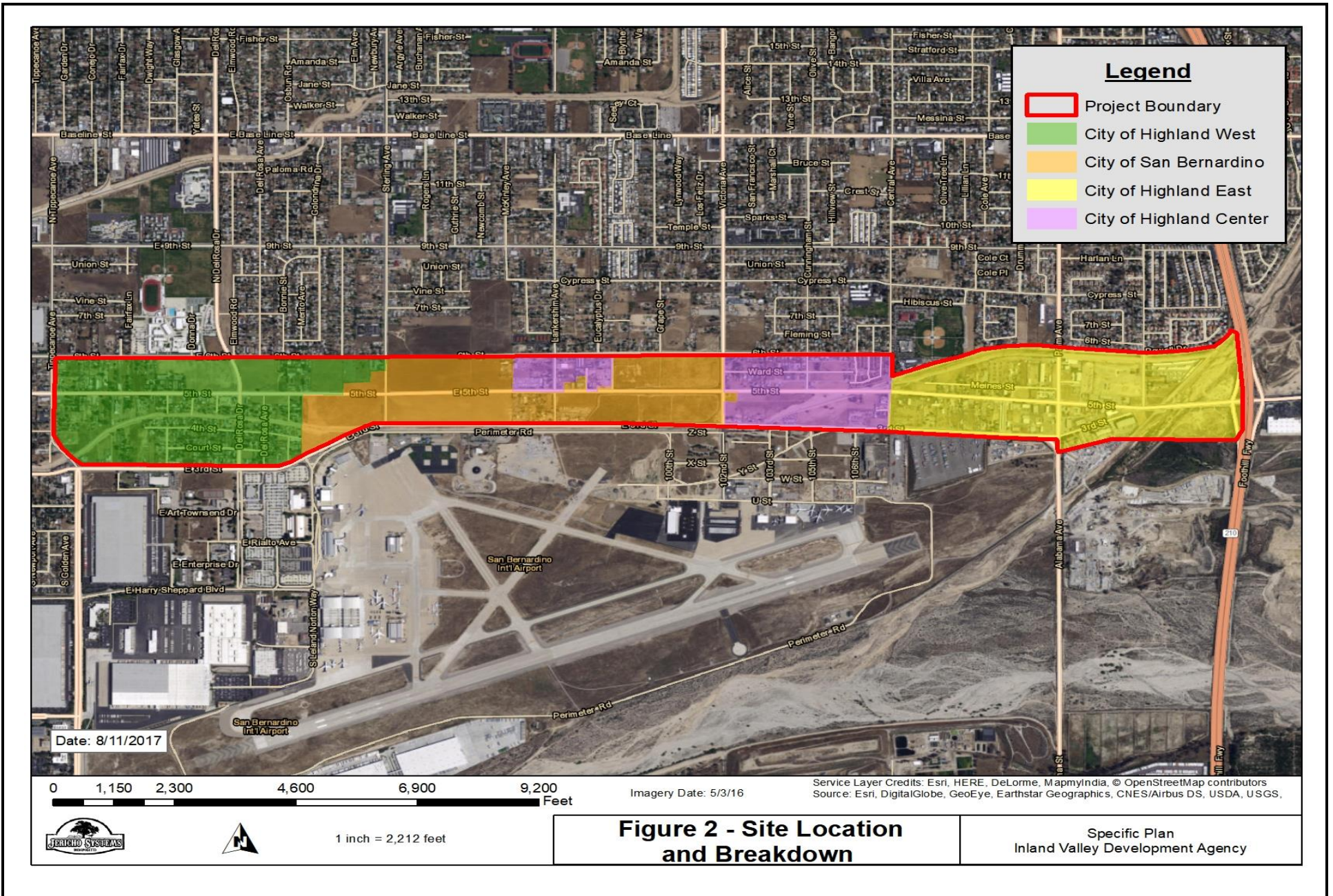


SOURCE: City of Highland General Plan

FIGURE 4.5-3

Tom Dodson & Associates
Environmental Consultants

Biological Sensitivity Map



SOURCE: Jericho Systems, BRA dated August 2017

FIGURE 4.5-4

Tom Dodson & Associates
Environmental Consultants

Site Location and Breakdown

4.6 CULTURAL RESOURCES

4.6.1 Introduction

This Subchapter will evaluate the environmental impacts to the issue area of cultural resources from implementation of the Airport Gateway Specific Plan (AGSP). The following topics address whether the proposed Project would alter or destroy an historic site; cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.4; alter or destroy an archaeological site; cause a substantial adverse change in the significance of an archaeological resource pursuant to California Code of Regulations, Section 15064.4; or, disturb any human remains, including those interred outside of formal cemeteries; restrict existing religious or sacred uses within the potential impact area. The purpose of the cultural resources component of this Draft Environmental Impact Report (DEIR) is to provide a spatial analysis of previously identified cultural resources and to the extent feasible assess the potential for as-yet undocumented historical, archaeological, or paleontological resources to be encountered within the AGSP Planning Area. In this way, the sensitivity for such resources to be encountered at a future specific project site can be incorporated into the planning process for future infrastructure and entitlement compliance considerations.

“Cultural resource” is primarily a term representing the physical evidence or a place associated with past human activity. Because paleontological resources (fossil remains) can be exposed through grading, excavation, and other ground-disturbing activities, they are also considered under the cultural resource component for the purpose of this DEIR. Cultural resources can be a building, structure, site, landscape, object, or natural feature that can be characterized temporally as prehistoric or historical in origin:

- Prehistoric cultural resources are the result of cultural activities of the ancestors and predecessors of contemporary Native Americans, and often retain traditional and spiritual significance to them. Examples of prehistoric cultural resources include the archaeological remains of Native American villages and campsites; food processing, lithic resource procurement, or tool-making localities; and human burials and cremations. They may also consist of trails, rock art and geoglyphs, and isolated artifacts.
- Historical cultural resources are any human-made environmental features that provide a setting for human activity during the historic period, from the beginning of European colonization to 50 years before present (B.P.). Examples include buildings, structures, and their remains; roads, irrigation works, and other infrastructure/engineering features; and refuse deposits. They may relate to mission activities, travel and exploration, settlement and homesteading, cattle and sheep herding, mining, agriculture, industrial and commercial development, and urban/suburban expansion, among other themes. In the San Bernardino area, historical cultural resources may date to as early as the Spanish exploration period in the late 18th century.

Cultural Resource issues will be discussed below as set in the following framework:

- 4.6.1 Introduction
- 4.6.2 Regulatory Setting
- 4.6.3 Existing Setting
- 4.6.4 Thresholds of Significance
- 4.6.5 Methodology
- 4.6.6 Potential Impacts
- 4.6.7 Mitigation Measures

- 4.6.8 Cumulative Analysis
- 4.6.9 Unavoidable Adverse Impacts

The following comments regarding cultural resources issues were raised at the public scoping meeting or as part of the Notice of Preparation:

NOP Comment Letter #1 (NAHC): The comment letter supplied by the NAHC outlines the circumstances in which an EIR must be prepared, and specifically relays that the Lead Agency must determine whether there are historical resources within the project APE, and whether such resources are significant.

Response: This comment is noted, and IVDA has followed through with the preparation of an EIR, within which, under Subchapter 4.6, historical and archeological are considered and analyzed under the thresholds provided by the NAHC.

The Cultural Resources Assessment specific to the development in the AGSP has been prepared in accordance with the NAHC's recommended standards. This report is provided as Appendix 3 to Volume 2 of this DPEIR.

NOP Comment Letter #1 (NAHC): The comment letter supplied by the NAHC indicates that the lead agency must consult with all Native American tribes that are traditionally and culturally affiliated with the geographic area of a proposed project; the Comment Letter details the AB 52 consultation process.

Response: This comment is noted, and IVDA has contacted the San Manuel Band of Mission Indians—a Tribe that is a partner in the development of the AGSP—under the AB 52 consultation process, as the only Native American tribe that has requested consultation on future projects under the IVDA/SBIAA jurisdiction.

NOP Comment Letter #1 (NAHC): The Comment Letter details the provisions of SB 18 and how a lead agency would comply with SB 18.

Response: This comment is noted, and SB 18 is not applicable to the IVDA as IVDA does not have land use authority to adopt or modify a General Plan or Specific Plan. SB 18 will be required to be initiated by both the City of Highland and the City of San Bernardino after the IVDA Board of Directors considers the certification of the Final AGSP PEIR. If the IVDA Board of Directors certifies the Final AGSP PEIR, then the Cities of Highland and San Bernardino may take the certification of the AGSP PEIR to the respective City Planning Commissions and/or City Councils for certification. The SB 18 process would be completed by each City prior to consideration of the certification of the Final AGSP PEIR by each City and approval of the AGSP itself.

NOP Comment Letter #1 (NAHC): The Comment Letter details NAHC recommendations for cultural resource assessments including contacting the appropriate regional archaeological information center for record search, conducting an archaeological inventory survey if required, and submit report per requirements, contacting the Native American Heritage Commission for a sacred lands file check, as well as suggestions for mitigation to prevent impacts to subsurface resources.

Response: The "Historical/Archaeological Resources Reconnaissance Fifth and Third Street Corridor Specific Plan Cities of San Bernardino and Highland, San Bernardino County, California" and "Historical/Archaeological Resources Survey Report City Creek Channel Project Cities of San

Bernardino and Highland San Bernardino County, California” that were prepared for the AGSP has been prepared to the specifications provided in this comment. Please refer to Appendices 3a and 3b in Volume 2 of this DEIR. Detailed programmatic mitigation has been provided to address the potential for subsurface resources to exist within the Planning Area, as no site-specific projects have been proposed under the AGSP at this time; these measures address the treatment and disposition of subsurface resources, should they be discovered. These mitigation measures can be found under Subsection 4.6.5.

References including Historic Map, Aerial Photograph, and Record Collections:

- California Historic Resources Information System: reports and site records pertaining to the AGSP project area; available at the South-Central Coastal Information Center, California State University, Fullerton.
- General Land Office, U.S. Department of the Interior: land survey plat maps, 1850s-1910s; available at U.S. Bureau of Land Management, California Desert District, Moreno Valley.
- Google Earth: historic aerial photograph collection, 1984-2016; available through the Google Earth software.
- Nationwide Environmental Title Research Online: historic aerial photograph collection, 1938-2016; available at <http://www.historicaerials.com>.
- Natural History Museum of Los Angeles County, Vertebrate Paleontology Section: paleontology collection records; available at the museum, Los Angeles.
- San Bernardino County Museum, Division of Earth Sciences: Regional Paleontological Localities Inventory; available at the museum, Redlands.
- United States Geological Survey, U.S. Department of the Interior: topographic maps, various quadrangles (30', 15', and 7.5'), 1901-1996; available at Science Library, University of California, Riverside.

The following information has been abstracted from a report prepared by CRM TECH with minor edits to fit the focus of this DEIR. CRM TECH prepared two cultural resources documents for the proposed AGSP. The first study evaluated the potential prehistoric and historic resources within the Specific Plan boundary. This study is titled “*Historical/Archaeological Resources Reconnaissance Fifth and Third Street Corridor Specific Plan Cities of San Bernardino and Highland, San Bernardino County, California,*” December 9, 2017. The second study was prepared to address the potential improvements to the City Creek Bypass Channel. This study is titled “*Historical/Archaeological Resources Survey Report City Creek Channel Project Cities of San Bernardino and Highland San Bernardino County, California,*” January 30, 2020. These two reports are provided in Volume 2 of this document as Appendix 3.

4.6.2 Regulatory Setting

The cultural resources component of this DEIR is prepared to address implementation of the AGSP, if and when it is approved in the future. The location of potential projects range between well-defined to relatively uncertain at this time, but the various components will occur in commercial, industrial, and residential areas in the communities within the planning area.

Activities requiring excavation, movement of soil material or demolition at any location within the planning area have potential to adversely affect cultural resources. In most cases, however, pipelines will be installed along existing roadways and public rights-of-way where development has already occurred, thus the chances of uncovering previously unidentified cultural resources

are diminished somewhat by this circumstance. During construction of new industrial, business park or mixed-use structures, the chances of encountering cultural resources are greater than along existing roadways, but the actual potential of discovery at each individual location is substantially different and highly site-specific.

The impact assessment presented below focuses on physical changes to the landscape at a project site and any potential adverse impacts these changes may have on any historical, archeological, or paleontological resources that exist at the site. For purposes of the impacts, it is assumed that over the next 20 years the whole AGSP planning area will be developed as proposed and described in the Project Description of this document.

4.6.2.1 Federal

National Historic Preservation Act

Cultural resources are protected through the National Historic Preservation Act (NHPA) of 1966, as amended (54 United States Code [U.S.C.] 300101 et seq.), and the implementing regulations, Protection of Historic Properties (36 Code of Federal Regulations [CFR] Part 800), the Archaeological and Historic Preservation Act of 1974, and the Archaeological Resources Protection Act of 1979. Prior to implementing an “undertaking” (e.g., issuing a federal permit), the NHPA (54 U.S.C. 306108) requires federal agencies to consider the effects of the undertaking on historic properties and to afford the Advisory Council on Historic Preservation and the State Historic Preservation Officer (SHPO) a reasonable opportunity to comment on any undertaking that would adversely affect properties eligible for listing in the National Register of Historic Places (NRHP). Under the NHPA, properties of traditional religious and cultural importance to a Tribe are eligible for inclusion in the NRHP (54 U.S.C. 302706). Also, under the NHPA, a resource is considered significant if it meets the NRHP listing criteria at 36 CFR 60.4.

National Register of Historic Places

The National Register of Historic Places (National Register) was established by the NHPA of 1966, as “an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the Nation’s historic resources and to indicate what properties should be considered for protection from destruction or impairment” (Code of Federal Regulations [CFR] 36 Section 60.2). The National Register recognizes both historical-period and prehistoric archaeological properties that are significant at the national, state, and local levels. In the context of the project, which may involve historical-period structures, the following National Register criteria are given as the basis for evaluating archaeological resources.

To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must meet one or more of the following four established criteria (U.S. Department of the Interior, 1995):

- Are associated with events that have made a significant contribution to the broad patterns of our history;
- Are associated with the lives of persons significant in our past;
- Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- Have yielded, or may be likely to yield, information important in prehistory or history.

Unless the property possesses exceptional significance, it must be at least fifty-years old to be eligible for National Register listing (U.S. Department of the Interior, 1995).

In addition to meeting the criteria of significance, a property must have integrity. Integrity is defined as “the ability of a property to convey its significance” (U.S. Department of the Interior, 1995). The National Register recognizes seven qualities that, in various combinations, define integrity. To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance. The seven factors that define integrity are location, design, setting, materials, workmanship, feeling, and association.

4.6.2.2 State

The State implements the NHPA through its statewide comprehensive cultural resource surveys and preservation programs. The California Office of Historic Preservation (OHP), as an office of the California Department of Parks and Recreation, implements the policies of the NHPA on a statewide level. The OHP also maintains the California Historic Resources Inventory. The State Historic Preservation Officer (SHPO) is an appointed official who implements historic preservation programs within the State’s jurisdictions.

California Register of Historical Resources

The California Register of Historical Resources (California Register) is “an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change.” (California Public Resources Code § 5024.1[a]). The criteria for eligibility for the California Register are based upon National Register criteria (California Public Resources Code § 5024.1[b]). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.

- To be eligible for the California Register, a prehistoric or historical-period property must be significant at the local, State, and/or federal level under one or more of the following criteria:
- Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- Is associated with the lives of persons important in our past;
- 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
- Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must meet one of the criteria of significance described above, and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register and those formally Determined Eligible for the National Register;
- California Registered Historical Landmarks from No. 770 onward; and,
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5 (Those properties identified as eligible for listing in the National Register of Historic Places, the California Register, and/or a local jurisdiction register);
- Individual historical resources;
- Historical resources contributing to historic districts; and,
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

California Historic Landmarks

California Historical Landmarks (CHLs) are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value and that have been determined to have statewide historical significance by meeting at least one of the criteria listed below. The resource also must be approved for designation by the County Board of Supervisors (or the city or town council in whose jurisdiction it is located); be recommended by the State Historical Resources Commission; and be officially designated by the Director of California State Parks. The specific standards now in use were first applied in the designation of CHL #770. CHLs #770 and above are automatically listed in the CRHR.

To be eligible for designation as a landmark, a resource must meet at least one of the following criteria:

- It is the first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California);
- It is associated with an individual or group having a profound influence on the history of California; or
- It is a prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder.

California Points of Historical Interest

California Points of Historical Interest (PHI) are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific, or technical, religious, experimental, or other value. PHI designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. No historic resource may be designated as both a landmark and a point. If a point is later granted status as a landmark, the point designation will be retired. In practice, the point designation program is most often used in localities that do not have a locally enacted cultural heritage or preservation ordinance.

To be eligible for designation as a PHI, a resource must meet at least one of the following criteria:

- It is the first, last, only, or most significant of its type within the local geographic region (city or county);
- It is associated with an individual or group having a profound influence on the history of the local area; or
- It is a prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

California Environmental Quality Act

Under CEQA (Public Resources Code [PRC] Section 21084.1), a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. State CEQA Guidelines Section 15064.4 defines a historical resource as: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the CRHR; (2) a resource included in a local register of historical resources, as defined in Public Resources Code (PRC) Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record. The fact that a resource does not meet the three criteria outlined above does not preclude the lead agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(j) or 5024.1.

As described by PRC Section 21084.1 and Section 15064.4 of the State CEQA Guidelines, should a project cause a substantial adverse change (defined as 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) in the significance of an historical resource, the lead agency must identify potentially feasible measures to mitigate these effects (State CEQA Guidelines Sections 15064.4(b)(1) and 15064.4(b)(4)).

Archaeological resources are defined in CEQA Section 21083.2, which states that a "unique" archaeological resource is an archaeological artifact, object, or site that has a high probability of meeting any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Unique archaeological resources as defined in Section 21083.2 may require reasonable efforts to preserve resources in place (Section 21083.1(a)). If preservation in place is not feasible, mitigation measures shall be required. Additionally, the State CEQA Guidelines state that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment (State CEQA Guidelines Section 15064.4(c)(4)).

California Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 requires, in the event human remains are discovered, that all ground disturbances must cease and the County Coroner must be contacted to determine the nature of the remains. In the event the remains are determined to be Native American in origin by the Coroner, the Coroner is required to contact the Native American Heritage Commission (NAHC) within 24 hours to relinquish jurisdiction.

California Public Resources Code Section 5097.98

Section 5097.98, as amended by Assembly Bill 2641, provides procedures in the event human remains of Native American origin are discovered during project implementation. Section 5097.98 requires that no further disturbances occur in the immediate vicinity of the discovery, that the discovery is adequately protected according to generally accepted cultural and archaeological standards, and that further activities take into account the possibility of multiple burials. Section 5097.98 further requires the NAHC, upon notification by a County Coroner, designate and notify a Most Likely Descendant (MLD) regarding the discovery of Native American human remains. Once the MLD has been granted access to the site by the landowner and inspected the discovery, the MLD then has 48 hours to provide recommendations to the landowner for the treatment of the human remains and any associated grave goods.

In the event that no descendant is identified, or the descendant fails to make a recommendation for disposition, or if the land owner rejects the recommendation of the descendant, the landowner may, with appropriate dignity, reinter the remains and burial items on the property in a location that will not be subject to further disturbance.

Paleontological Resources

Section 5097.5 of the PRC specifies that any unauthorized removal of paleontological remains is a misdemeanor. Further, the California Penal Code Section 622.5 sets the penalties for the damage or removal of paleontological resources.

4.6.3 Environmental Setting: Cultural Resources

4.6.3.1 Previous Cultural Resources Studies and Historical / Archaeological Resources

AGSP Project Area

According to SCCIC records, more than 30 previous cultural resource studies completed between 1973 and 2015 covered portions of the planning area, including significant stretches of Third, Fifth, and Sixth Streets, but the planning area as a whole had not been surveyed systematically prior to this study (Figure 4.6-2). As a result of the past studies, 103 cultural resources were previously identified as lying within, partially within, or adjacent to the boundaries of the planning area, including eight archaeological sites (Table 4.6-1) and 95 buildings or groups of buildings (Table 4.6-2).

**Table 4.6-1
 PREVIOUSLY IDENTIFIED ARCHAEOLOGICAL SITES IN THE PLANNING AREA**

Site Number	Name
36-006848	Cram and Van Leuven Ditch
36-029563	Remains of mid-20th century irrigation system
36-010820	San Bernardino, Arrowhead and Waterman Railroad
P1074-97H	McKenzie Ditch
P1074-98H	Stewarts Ditch
P1074-99H	Whitlock Ditch
P1074-100H	Feudge Ditch
PSBR-27H	North Fork Ditch

As Table 4.6-1 shows, all eight of the known archaeological sites in the planning area dated to the historic period, and no prehistoric—i.e., Native American—sites have been identified within the planning area. One of the sites, 36-010820, represents the former alignment of the San Bernardino, Arrowhead and Waterman Railroad, also known as the Harlem Motor Road or the Highlands Motor Line. Although originally recorded well outside the planning area, this rail line once traversed within the Sixth Street right-of-way along the northern project boundary (USGS 1901; 1943a; 1943b; NETR Online 1938). Constructed in 1888 as a narrow-gauge motor line from San Bernardino to Harlem Hot Springs, the San Bernardino, Arrowhead and Waterman Railroad operated for 20 years before being acquired by the Pacific Electric Railway Company and eventually dismantled sometime around the 1940s (Swett 1967:23; ERHA n.d.).

The other seven sites all consisted of irrigation features, and six of them represented the former courses of various ditches dating to the mid- or late-19th century. A closer examination of the existing records indicates that the delineation of these long-abandoned early ditches across the planning area was based solely on historical accounts, and no physical remains have been recorded of any of them within the planning area boundaries. A review of previous studies on irrigation works in the San Bernardino Valley indicates that one of them, the Cram and Van Leuven Ditch (36- 006848), in fact terminated before reaching the planning area, where it merged into the North Fork Ditch (PSBR-27H; Scott 1977:14-15).

The only archaeological site that was actually observed in the planning area was 36-029563, which was recorded in 2015 as the remnants of a localized irrigation system, such as concrete junction boxes and a pump, that was installed sometime between 1943 and 1959 (Vader et al. 2015:2-3). The existing site record forms offer no evidence that the site was evaluated for historic significance at the time of recordation, and the cultural resources survey report cited in the site record (Ehringer et al. 2015) could not be located at the SCCIC despite diligent search efforts.

Of the 95 buildings or groups of building identified within, partially within, or adjacent to the planning area, all but two were recorded, or had their documentation updated, during two past studies completed by CRM TECH in 2011 and 2013, and all of them were determined not to meet the criteria for listing in the National Register of Historic Places or the California Register of Historical Resources (Tang and Jacquemain 2011:7-8; 2013:14-15). Of the other two properties, 36-029562 represented a circa 1916 residence recorded in 2015, which was also found not to be eligible for the National Register or the California Register (McDonald and Anderson 2015:2). The other, 36-013750, was recorded in 2007 as a shed and a garage that survived from a former

residential property of unknown age, but was not evaluated at the time (Alexandrowicz 2007a; 2007b:76).

**Table 4.6-2
 PREVIOUSLY RECORDED HISTORIC-PERIOD BUILDINGS IN THE PLANNING AREA**

Site Number	APN	Street Address	City
36-013750	1192-621-22	27262 Meines Street	Highland
36-020001	0279-211-13	25502 5th Street	San Bernardino
36-025789	0279-181-05	8044 Del Rosa Drive	San Bernardino
36-025790	0279-182-11	8043 Del Rosa Drive	San Bernardino
36-025791	0279-182-12	8033 Del Rosa Drive	San Bernardino
36-025792	0279-184-02	25473 5th Street	San Bernardino
36-025793	0279-185-06	25364 4th Street	San Bernardino
36-025794	0279-191-05	25361 4th Street	San Bernardino
36-025795	0279-191-14	25360 Court Street	San Bernardino
36-025796	0279-191-17	25340 Court Street	San Bernardino
36-025797	1192-221-10	7982 Lankershim Avenue	Highland
36-025798	1192-241-07	26072 3rd Street	San Bernardino
36-025799	1192-241-09	316 Lankershim Avenue	San Bernardino
36-025800	1192-291-17	7987 Lankershim Avenue	Highland
36-025801	1192-291-18	2426 5th Street	Highland
36-025802	1192-291-31	26186 5th Street	Highland
36-025803	1192-531-02	26552 5th Street	Highland
36-025804	1192-531-04	26578 5th Street	Highland
36-025805	1192-531-06	26596 5th Street	Highland
36-025806	1192-531-32	7957 Victoria Avenue	Highland
36-025807	1192-531-33	7977 Victoria Avenue	Highland
36-025808	1192-611-11	27072 5th Street	Highland
36-025809	1192-611-12	27060 5th Street	Highland
36-025810	1192-621-16	27140 5th Street	Highland
36-025811	1192-621-17	27136 5th Street	Highland
36-025812	1192-621-18	27124 5th Street	Highland
36-025813	1192-621-19	27112 5th Street	Highland
36-025814	1192-631-13	27075 5th Street	Highland
36-025815	1192-641-02	8048 Palm Avenue	Highland
36-025816	1192-641-11	27111 5th Street	Highland
36-025817	1201-301-16	27356 5th Street	Highland
36-025818	1201-311-22	27409 5th Street	Highland
36-025819	1201-311-24	27381 5th Street	Highland
36-026641	0279-192-11	1690 3rd Street	Highland
36-026642	1192-241-03	2310 3rd Street	San Bernardino
36-026643	1192-241-05	2358 3rd Street	San Bernardino
36-026644	1192-241-03	2418 3rd Street	San Bernardino
36-026645	1192-311-03	2420-2422 3rd Street	San Bernardino
36-026646	1192-311-03	2424 3rd Street	San Bernardino
36-026647	0279-123-19	24936 3rd Street	San Bernardino
36-026648	0279-151-40	25046 3rd Street	San Bernardino
36-026649	0279-151-19	25064 3rd Street	San Bernardino
36-026650	0279-151-45	25088 3rd Street	San Bernardino

Site Number	APN	Street Address	City
36-026651	0279-151-15	25096 3rd Street	San Bernardino
36-026652	0279-171-13	25190 3rd Street	San Bernardino
36-026653	0279-173-31	25214 3rd Street	San Bernardino
36-026654	0279-173-27	25222 3rd Street	San Bernardino
36-026655	0279-173-24	25248 3rd Street	San Bernardino
36-026656	0279-173-21	25280 3rd Street	San Bernardino
36-026657	0279-192-13	25376 3rd Street	San Bernardino
36-026658	0279-193-08	25444 3rd Street	San Bernardino
36-026659	1192-241-09	26086 3rd Street	San Bernardino
36-026660	0279-141-72	24901 5th Street	San Bernardino
36-026661	0279-131-22	24914 5th Street	San Bernardino
36-026662	0279-141-73	24927 5th Street	San Bernardino
36-026663	0279-131-21	24932 5th Street	San Bernardino
36-026664	0279-141-01	24939 5th Street	San Bernardino
36-026665	0279-131-20	24948 5th Street	Highland
36-026666	0279-141-03	24953 5th Street	Highland
36-026667	0279-131-36	24964 5th Street	San Bernardino
36-026668	0279-131-17	24974 5th Street	San Bernardino
36-026669	0279-141-05	24977 5th Street	San Bernardino
36-026670	0279-131-16	24982 5th Street	San Bernardino
36-026671	0279-131-15	24992 5th Street	San Bernardino
36-026672	0279-141-06	25003 5th Street	San Bernardino
36-026673	0279-151-27	25037 5th Street	San Bernardino
36-026674	0279-131-12	25038 5th Street	San Bernardino
36-026675	0279-141-07	25051 5th Street	San Bernardino
36-026676	0279-201-15	25084 5th Street	San Bernardino
36-026677	0279-151-44	25089 5th Street	San Bernardino
36-026678	0279-201-13	25112 5th Street	San Bernardino
36-026679	0279-151-38	25127 5th Street	Highland
36-026680	0279-201-12	25128 5th Street	San Bernardino
36-026681	0279-151-39	25141 5th Street	San Bernardino
36-026682	0279-201-11	25142 5th Street	Highland
36-026683	0279-161-02	25157 5th Street	San Bernardino
36-026684	0279-162-06	25233 5th Street	San Bernardino
36-026685	0279-163-03	25257 5th Street	San Bernardino
36-026686	1192-291-23	? 5th Street (at Roberts Street)	San Bernardino
36-026688	0279-141-72	8033 Tippecanoe Avenue	Highland
36-026689	0279-141-56	8035 Tippecanoe Avenue	Highland
36-026690	0279-141-46	8037 Tippecanoe Avenue	Highland
36-026693	0279-141-45	8055 Tippecanoe Avenue	Highland
36-026694	0279-141-44	8057 Tippecanoe Avenue	Highland
36-026695	0279-141-43	8069 Tippecanoe Avenue	Highland
36-026696	0279-141-70	8071 Tippecanoe Avenue	Highland
36-026697	0279-141-69	8079 Tippecanoe Avenue	Highland
36-026699	0279-141-32	8099 Tippecanoe Avenue	Highland
36-026700	0279-141-54	8107 Tippecanoe Avenue	Highland
36-026701	0279-141-19	8115 Tippecanoe Avenue	Highland
36-026704	0279-141-18	8125 Tippecanoe Avenue	Highland

Site Number	APN	Street Address	City
36-026706	0279-141-17	8137 Tippecanoe Avenue	Highland
36-026708	0279-192-02	25347 Court Street	San Bernardino
36-026709	0279-151-42	25091 5th Street	San Bernardino
36-029562	0279-211-01	25457 6th Street	Highland

Outside of the planning area but within a one-mile radius, SCCIC records show some 80 additional studies covering various tracts of land and linear features, many of the them on the former Norton Air Force Base, now the San Bernardino International Airport (Figure 4.6-2). As a result, 98 additional historical/archaeological sites, including 88 recorded sites and 10 pending sites, and four isolates— i.e., localities with fewer than three artifacts—were identified within the one-mile scope of the records search.

Among these 102 known cultural resources, only two sites and two isolates were of Native American origin. Both of the sites were recorded in the early 1960s as Native American habitation areas occupied in historic times. One of them, 36-002794, yielded buried mortars and metates during construction work, while the other, 36-002313, was simply described as being “completely gone” (Smith 1961; 1962). The two isolates were recorded as a painted sandstone concretion and a white chert flake.

The vast majority of the 102 cultural resources outside the planning area dated to the historic period, and included 74 buildings and structures, most of them located on the former Norton Air Force Base, along with additional irrigation features, roads, and scattered refuse items. None of these 102 cultural resources was found in the immediate vicinity of the planning area. Therefore, none of them requires further consideration in the proposed specific plan.

On February 9, 2017, CRM TECH submitted a written request to the State of California’s Native American Heritage Commission for a records search in the Commission’s sacred lands file. In response, the commission reported that the records search identified no Native American cultural resources within the planning area but recommended that local Native American groups be contacted for further information. For that purpose, the Commission provided a list of potential contacts in the region (Appendix 1 of the first CRM TECH study).

Following the Commission’s recommendation, on February 23 CRM TECH sent written requests for comments to all five individuals on the referral list and the organizations they represent (Appendix 1 of the first CRM TECH study). In addition, as previously directed by the Morongo Band of Mission Indians, Raymond Huaute, the tribe’s Cultural Resources Specialist, was also contacted.

As of this time, only two of the tribal representatives have responded to the inquiry. Goldie Walker, Chairperson of the Serrano Nation of Indians, stated in a telephone conversation on March 8, 2017, that the general area is sensitive for Native American cultural resources. She requested that a monitor from the Serrano Nation be present during all ground-disturbances in the planning area, notification of any archaeological findings, and copies of all cultural resources documentation for tribal review.

On April 8, 2017, Joan Schneider, Consulting Archaeologist for the San Manuel Band of Mission Indians, replied by e-mail and identified the planning area as a part of the Serrano ancestral territory and an area that the tribe considers to be culturally sensitive. She requested additional

information regarding the specific plan in order to facilitate further, government-to-government consultations, and that a standard Phase I cultural resources survey be completed on the entire planning area (Appendix 1 of the first CRM TECH study).

City Creek Bypass Channel

Introduction

Between October 2019 and January 2020, at the request of Tom Dodson & Associates, CRM TECH performed a cultural resources study for the proposed City Creek Bypass Channel in the Cities of San Bernardino and Highland, San Bernardino County, California (Figure 4.6-3). The primary subject of the study is a three-mile-long segment of the existing City Creek Bypass Channel between Warm Creek on the west and Victoria Avenue on the east (Figures 4.6-4 and 4.6-5). The maximum width of the project area is approximately 80 feet, including 15 feet for an access road along each side of the channel where sufficient space is available. The project alignment extends across a portion of the Rancho San Bernardino land grant lying with Township 1 South, Ranges 3 and 4 West, San Bernardino Baseline and Meridian.

Current Natural Setting

The project location is in the eastern end of the San Bernardino Valley, a broad inland valley defined by the San Gabriel and San Bernardino Mountain Ranges on the north and a series of low rocky hills on the south. The natural environment of the region is characterized by its temperate Mediterranean climate, with the average maximum temperature in July reaching above 90°F and the average minimum temperature in January hovering around 35°F. Rainfall is typically less than 20 inches annually, most of which occurs between November and March.

Situated in a largely urbanized setting, the project route is flanked mainly by residential neighborhoods and vacant land, with some commercial and light industrial properties also adjacent and the San Bernardino International Airport (formerly Norton Air Force Base) occupying most of the land on the south side toward the eastern end. The existing City Creek Bypass Channel is lined with concrete side-walls for the easternmost one mile, where it runs between the Airport and Third Street, and at the western end just before it merges into the Warm Creek Channel. The rest of the channel features unlined earthen banks, sometimes with fencing and netting along the course.

The terrain along the project route is relatively level except for the four- to six-foot depth of the channel, with a gradual incline to the east. The elevations range approximately from 1,025 feet to 1,140 feet above mean sea level. Surface soils in the vicinity consist of light greyish medium- to coarse-grained sands mixed with small to large rocks and small boulders. Vegetation observed within project boundaries includes foxtail, tumbleweed, wild mustard, tree tobacco, jimsonweed, and other small grasses and shrubs.

Cultural Setting

The earliest evidence of human occupation in inland southern California was discovered below the surface of an alluvial fan in the northern portion of the Lakeview Mountains, overlooking the San Jacinto Valley, with radiocarbon dates clustering around 9,500 B.P. (Horne and McDougall 2008).

Another site found near the shoreline of Lake Elsinore, close to the confluence of Temescal Wash and the San Jacinto River, yielded radiocarbon dates between 8,000 and 9,000 B.P. (Grenda 1997). Additional sites with isolated Archaic dart points, bifaces, and other associated lithic artifacts from the same age range have been found in the nearby Cajon Pass area, typically atop

knolls with good viewsheds (Basgall and True 1985; Goodman and McDonald 2001; Goodman 2002; Milburn et al. 2008).

The cultural history of southern California has been summarized into numerous chronologies, including the works of Chartkoff and Chartkoff (1984), Warren (1984), and others. The prehistory of Riverside County specifically has been addressed by O'Connell et al. (1974), McDonald, et al. (1987), Keller and McCarthy (1989), Grenda (1993), Goldberg (2001), and Horne and McDougall (2008). Although the beginning and ending dates of different cultural horizons vary regionally, the general framework of the prehistory of inland southern California can be divided into three primary periods:

- Paleoinian Period (ca. 18,000-9,000 B.P.): Native peoples of this period created fluted spearhead bases designed to be hafted to wooden shafts. The distinctive method of thinning bifaces and spearhead preforms by removing long, linear flakes leaves diagnostic Paleoinian markers at tool-making sites. Other artifacts associated with the Paleoinian toolkit include choppers, cutting tools, retouched flakes, and perforators. Sites from this period are very sparse across the landscape and most are deeply buried.
- Archaic Period (ca. 9,000-1,500 B.P.): Archaic sites are characterized by abundant lithic scatters of considerable size with many biface thinning flakes, bifacial preforms broken during manufacture, and well-made groundstone bowls and basin metates. As a consequence of making dart points, many biface thinning waste flakes were generated at individual production stations, which is a diagnostic feature of Archaic sites.
- Late Prehistoric Period (ca. 1,500 B.P.-contact): Sites from this period typically contain small lithic scatters from the manufacture of small arrow points, expedient groundstone tools such as tabular metates and unshaped manos, wooden mortars with stone pestles, acorn or mesquite bean granaries, ceramic vessels, shell beads suggestive of extensive trading networks, and steatite implements such as pipes and arrow shaft straighteners.

The San Bernardino-Highland area is generally considered a part of the homeland of the Serrano Indians, which is centered in the San Bernardino Mountains. Together with that of the Vanyume people, linguistically a subgroup, the traditional territory of the Serrano also includes part of the San Gabriel Mountains, much of the San Bernardino Valley, and the Mojave River Valley in the southern portion of the Mojave Desert, reaching as far east as the Cady, Bullion, Sheep Hole, and Coxcomb Mountains. The name "Serrano" was derived from a Spanish term meaning "mountaineer" or "highlander." The basic written sources on Serrano culture are Kroeber (1925), Strong (1929), and Bean and Smith (1978). The following ethnographic discussion of the Serrano people is based mainly on these sources.

Prior to European contact, Serrano subsistence was defined by the surrounding landscape and primarily based on the gathering of wild and cultivated foods and hunting, exploiting nearly all of the resources available. The population settled mostly on elevated terraces, hills, and finger ridges near where flowing water emerged from the mountains. They were loosely organized into exogamous clans led by hereditary heads, and the clans were in turn affiliated with one of two exogamous moieties named for the wildcat, *Tukutam*, and the coyote, *Wahiiam*. The exact nature of the clans, their structure, function, and number are not known, except that each clan was the largest autonomous political and landholding unit. The core of the unit was the patrilineage, although women retained their own lineage names after marriage. There was no pan-tribal political union among the clans, but they shared strong trade, ceremonial, and marital connections that sometimes also extended to other surrounding nations, such as the Kitanemuk, the Tataviam, and the Cahuilla.

The Serrano had a variety of technological skills that they used to acquire food, shelter, and clothing but also to create ornaments and decorations. Common tools included manos and metates, mortars and pestles, hammerstones, fire drills, awls, arrow straighteners, and stone knives and scrapers. These lithic tools were made from locally sourced material as well as materials procured through trade or travel. They also used wood, horn, and bone spoons and stirrers; baskets for winnowing, leaching, grinding, transporting, parching, storing, and cooking; and pottery vessels for carrying water, storage, cooking, and serving food and drink. Much of this material cultural, elaborately decorated, does not survive in the archaeological record. As usual, the main items found archaeologically relate to subsistence activities.

Although contact with Europeans may have occurred as early as 1771 or 1772, Spanish influence on Serrano lifeways was negligible until the 1810s, when a mission *asistencia* was established on the southern edge of Serrano territory. Between then and the end of the mission era in 1834, most of the Serrano in the western portion of their traditional territory were removed to the nearby missions. In the eastern portion, a series of punitive expeditions in 1866-1870 resulted in the death or displacement of almost all remaining Serrano population in the San Bernardino Mountains. Today, most Serrano descendants are affiliated with the San Manuel Band of Mission Indians, the Morongo Band of Mission Indians, or the Serrano Nation of Indians.

The San Bernardino Valley, along with the rest of Alta California, was claimed by Spain in the late 18th century, and the first European explorers traveled through the area as early as 1772, three years after the beginning of Spanish colonization (Beck and Haase 1974:15). For nearly four decades afterwards, however, the arid inland valley received little attention from the European colonizers, who concentrated their efforts along the Pacific coast. Following the establishment of Mission San Gabriel in 1771, the San Bernardino Valley became a part of the mission's vast land holdings. The name "San Bernardino" was bestowed on the region in the 1810s, when the *asistencia* and an associated mission rancho, both bearing that name, were established in present-day Loma Linda (Lerch and Haenszel 1981).

After gaining independence from Spain in 1821, the Mexican authorities began in 1834 the process of secularization to dismantle the mission system in Alta California. During the next 12 years, former mission ranchos throughout Alta California were surrendered to the Mexican government, and subsequently divided and granted to various prominent citizens of the province. In 1842, the former mission rancho of San Bernardino was granted to members of a prominent Los Angeles family, the Lugos (Schuiling 1984:34).

After the American annexation of Alta California in 1848, the Lugos sold the entire San Bernardino land grant in 1851 to a group of Mormon settlers, who promptly founded the town of San Bernardino, one of the first non-Indian settlements in what is known today as the Inland Empire (Schuiling 1984:45). The early growth of the Mormon colony was promising. It became the county seat of the newly created San Bernardino County in 1853 and was incorporated as a city the next year (*ibid.*:48-49). In 1857, however, the budding town suffered a devastating setback when half its population, responding to a recall from Mormon leaders, left California for Utah, causing the city to disincorporate (*ibid.*:50).

In the 1880s, spurred by the completion of the Santa Fe Railway in 1885, the rise of the profitable citrus industry, and a general land boom that swept through much of southern California, San Bernardino gradually recovered and reincorporated in 1886. With the selection of the city by the Santa Fe Railway as its regional headquarters, San Bernardino embarked on a period of steady growth that lasted well into the 20th century. During World War II, the growth of San Bernardino was further boosted when a U.S. Army Air Corps pilot training base was established in the

southeastern portion of the city in 1941 (Richards 1966). Renamed Norton Air Force Base in 1950, the large military installation continued to provide an important driving force in the local economy over the next 45 years until it was closed in 1994.

A few miles to the northeast of San Bernardino, the present-day Highland area received the earliest Euroamerican settlers at least by the mid-1850s (Richards 1966). The name “Highland” was adopted by the settlers in 1883, when the area had a large enough population to warrant the establishment of a school district, and the town of Highland was laid out in 1891 (*ibid.*). During much of the 20th century, Highland remained a small rural settlement best known for citrus cultivation. In recent decades, however, like many other former rural towns in southern California, Highland has experienced rapid growth as a bedroom community, culminating in its incorporation in 1987.

According to SCCIC records, portions of the project area, mostly near the eastern end, were included in at least 12 previous cultural resources studies completed between 1979 and 2019, but the project area as a whole had not been surveyed systematically prior to this study. As a result of these and other similar studies in the vicinity, two recorded historical/archaeological sites and three “pending” sites have been identified as lying within or partially within the project area, including two small segments of the City Creek Channel itself. These five sites are listed below (see Appendix 3 of the first CRM TECH study for further information):

36-006848 (CA-SBR-6848H)	Cram and van Leuven Ditch, circa 1858/1865
36-033079	Segments of City Creek Channel, circa 1940-1941
P1074-97H	“Pending” site: McKenzie Ditch, circa 1856
P1074-99H	“Pending” site: Whitlock Ditch, circa 1890s
PSBR-27H	“Pending” site: North Fork Ditch, circa 1856

The five known sites were subsequently included in the scope of the historical background research and the field survey, as discussed below. Outside the project area but within a half-mile radius, SCCIC records show roughly 30 other previous studies on various tracts of land and linear features. These studies resulted in the identification of nearly 130 recorded sites and six “pending” sites within the scope of the records search, in addition to those listed above. Only two of the sites were of prehistoric (i.e., Native American) origin. Site 36-002794 consisted of a collection of mortars and metates discovered during construction, and Site 36-001074 was described as a small lithic scatter with ten flakes, but the locations of these sites are not clearly defined in the existing records.

The rest of the sites dated to the historic period and consisted predominantly of buildings, including many associated with Norton Air Force Base. Other historic-period sites in the vicinity included various linear features of infrastructure, such as roads and irrigation ditches. None of these additional sites was found within the area to be impacted by the proposed project, and thus none of them requires further consideration during this study.

Historical sources offered ample evidence of settlement and development activities in the project vicinity during the mid- and late 19th century. As early as the mid-1850s, several Mormon settlements were known to have been established on the former Rancho San Bernardino, in addition to the main townsite bearing that name (Scott 1977:12). One of these, the City Creek Settlement, was located in the area along present-day Sixth Street between Waterman Avenue and Sterling Avenue, one-fourth to one-half mile north of the project location (*ibid.*). The North Fork Ditch (PSBR-27H), a short irrigation ditch built in 1856 from the Santa Ana River, served as

the settlement's main water supply line and evidently crossed the project area near the eastern end (*ibid.*:12, 13).

After a catastrophic flood on the Santa Ana River in 1862 rendered the original North Fork Ditch useless, the nearby Cram and van Leuven Ditch (36-006848), which had been built in 1858 further upstream but had terminated before reaching the project area, was enlarged and lengthened to convey water allotted to the City Creek Settlement as well (Scott 1977:14-16). The new ditch, completed in 1865, inherited the name of the North Fork Ditch but no longer crossed the project area, traversing east-west near Sixth Street instead (*ibid.*:15-16). In 1881-1882, a "highline ditch" was built along the base of the San Bernardino Mountains to maximize the area irrigated and became known as the North Fork Canal (*ibid.*:17). After that, the 1865 alignment of the combined North Fork Ditch and Cram and van Leuven Ditch near the project area was presumably abandoned.

The other two ditches known to have been once located across the project area, the McKenzie Ditch (P1074-97H) and the Whitlock Ditch (P1074-99H), were both relatively minor irrigation works. The McKenzie Ditch was built around 1856 to divert water from Warm Creek and ran south near present-day Tippecanoe Avenue to irrigate land on both sides of City Creek, crossing the latter by way of a wooden flume (Scott 1977:52, 55). The diminishing flow in Warm Creek and the subdivision of its service area for residential development eventually resulted in the abandonment of that ditch prior to the sale of the water rights to irrigators in Riverside in 1943 (*ibid.*:56). The Whitlock Ditch, a very short ditch that diverted from the north side of City Creek and discharged the surplus water into the McKenzie Ditch, is known to have been in use in 1898, but little further information is available on its history (*ibid.*:52, 58).

By the 1890s, a large number of buildings, most of them likely farmsteads, had appeared around the project location, and a grid of roads had been established, including the forerunners of Third Street, Victoria Avenue, Lankershim Avenue, Sterling Avenue, and Tippecanoe Avenue (Figure 4.6-6). In the 1930s, the road along the eastern portion of the project area was named City Creek Road, while the original alignment of Third Street ran parallel to the south (Figure 4.6-7; NETR Online 1938). Notably, the course of City Creek, then a wide, unregulated wash, did not coincide with the present-day channel along the entire route but traversed further to the south in the eastern reach (Figure 4.6-7; NETR Online 1938). That segment of the channel evidently resulted from the construction of what would become Norton Air Force Base in 1940-1941 (Richards 1966; Norton Air Force Base Museum n.d.).

In the 1950s, both Third Street and City Creek were clearly shown to have been realigned to their current courses outside the northern boundary of Norton Air Force Base, with Third Street absorbing the former City Creek Road (Figure 4.6-8; NETR Online 1959). By then, the eastern segment of the channel had apparently been lined with concrete, while the western reach of City Creek had also been channelized but left unlined as it is today (NETR Online 1959). The channel at the western end of the project area was realigned between 1959 and 1966, when the Warm Creek Channel was completely reconfigured (NETR Online 1959; 1966), and the segment extending east from the project area was converted into an underground culvert in 2012-2013, in preparation for the extension of Victoria Avenue onto the former military base in 2014-2016 (Google Earth 2012-2016). The rest of the City Creek Bypass Channel in and near the project area has undergone no major changes since 1959 except for the extension of Del Rosa Drive across it sometime between 1968 and 1980 (NETR Online 1959-2016; Google Earth 1996-2019).

The results of the field survey indicate that the existing City Creek Bypass Channel (Site 36-033079) is the only cultural resource of historical or prehistoric origin that is present within the

project area today. No remnants were found of the four irrigation ditches that once crossed the project area, namely the Cram and van Leuven Ditch, the McKenzie Ditch, the Whitlock Ditch, and the North Fork Ditch (Sites 36-006848, P1074-97H, P1074-99H, and PSBR-27H). In light of the drastic changes in the landscape since their abandonment, especially during and after World War II, it is clear that all physical traces of these early irrigation works have been obliterated by later development, at least in the immediate vicinity of this project.

Site 36-033079 was originally recorded in 2018 as an approximately 2,480-foot segment of the City Creek Bypass Channel near the intersection of Victoria Avenue, and a 700-foot segment at Victoria Avenue crossing was added to the site in 2019 (see Appendix 3 of the second CRM TECH study). As a result of the current survey, the site was extended further to the west to encompass the entire project alignment to its confluence with the Warm Creek Channel (see Appendix 3 of the second CRM TECH study). As mentioned above, the easternmost one mile of the channel is lined with concrete sidewalls, as is the westernmost 600 feet, while the rest of the length remains an unlined earthen channel.

A total of seven minor concrete bridges or culverts of historical age (or possibly of historical age) were recorded as associated features of the site. All of the bridges and culverts are of standard design and construction, and none of them demonstrate any notable characters in architecture or engineering (Figure 4.6-9). These seven bridges or culverts and their construction dates are listed below:

- Third Street crossing near Sterling Avenue, pre-1959*
 - Del Rosa Avenue crossing, pre-1959*
 - Del Rosa Drive crossing, 1968-1980*
 - Tippecanoe Avenue crossing, pre-1959*
 - Pedley Road crossing, pre-1959*
 - Palm Lane crossing, pre-1959*
 - Third Street crossing near Warm Creek Channel, 1959-1966*
- * Source: *NETR Online 1959-1980*

4.6.4 Thresholds of Significance

4.6.4.1 Historic and Archaeological Resources

The California Environmental Quality Act (CEQA) establishes that a project that may cause a substantial adverse change in the significance of a "historical resource" or a "tribal cultural resource" is a project that may have a significant effect on the environment (PRC §21084.1-2). According to PRC §5020.1(j), "historical resource" includes, but is not limited to, any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California." More specifically, CEQA guidelines state that the term "historical resources" applies to any such resources listed in or determined to be eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the Lead Agency (Title 14 CCR §15064.4(a)(1)-(3)).

Regarding the proper criteria of historical significance, CEQA guidelines mandate that "a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the California Register of Historical Resources" (Title 14 CCR §15064.4(a)(3)). A resource may be listed in the California Register if it meets any of the following criteria:

- (1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- (2) Is associated with the lives of persons important in our past.
- (3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- (4) Has yielded, or may be likely to yield, information important in prehistory or history. (PRC §5024.1(c))

4.6.4.2 Significance Thresholds

The thresholds analyzed in this section are derived from Appendix G of the CEQA Guidelines, and are used to determine the level of potential effect. The significance determination is based on the recommended criteria set forth in Section 15064.4 of the CEQA Guidelines. For analysis purposes, implementation of the AGSP would have a significant effect on cultural resources if it is determined that the project would:

CUL-1 Would the project cause a substantial adverse change in the significance of a historical resource as defined in 15064.4.?

CUL-2 Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.4.?

CUL-3 Disturb any human remains, including those interred outside of formal cemeteries.

4.6.5 Methodology

The purpose of the study is to identify and inventory all potential "historical resources" or "tribal cultural resources," as defined by CEQA, that are located within the planning area for future statutory/regulatory compliance considerations. In order to accomplish this objective, CRM TECH conducted a historical/archaeological resources records search, pursued general historical background research, contacted Native American representatives, and carried out a systematic field survey. This letter presents a summary of the methods and results of these research procedures. The planning area extends between Third Street and Sixth Street from Tippecanoe Avenue on the west to State Route 210 on the east, within Sections 4, 5, 8, and 9, T1S R3W, San Bernardino Baseline and Meridian, and a portion of the Rancho San Bernardino land grant (Figure 4.6-1).

On February 14, 2017, CRM TECH archaeologist Nina Gallardo, B.A., conducted the historical/archaeological resources records search at the South-Central Coastal Information Center (SCCIC), California State University, Fullerton. During the records search, Gallardo examined maps and records on file at the SCCIC for previously identified cultural resources in or near the planning area and existing cultural resources reports pertaining to the vicinity. Previously identified cultural resources include properties designated as California Historical Landmarks, Points of Historical Interest, or San Bernardino County Landmarks, as well as those listed in the National Register of Historic Places, the California Register of Historical Resources, or the California Historical Resources Inventory.

4.6.6 Potential Impacts

The following issues from the current Initial Study Form will be addressed for potential significance of cultural resource effects:

- CUL-1** Would the project cause a substantial adverse change in the significance of a historical resource as defined in 15064.4.?
- CUL-2** Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.4.?
- CUL-3** Disturb any human remains, including those interred outside of formal cemeteries.

Based on the sensitivity assessment presented in the sections above, implementation of specific projects in the planning area could encounter historical and archaeological resources and cause a significant impact on them. All future AGSP projects that may impact historical or archaeological resources in the planning area shall be subject to focused studies that cover the entire area of potential effects for each project, including any significant indirect effects. As dictated by the findings above, multiple phases of studies may be necessary to properly identify and evaluate potential cultural resources, mitigate project effects on any significant resources, and protect buried archaeological remains against inadvertent disturbances.

4.6.6.1 Potential “Historical Resources” in the Planning Area

AGSP Project Area

Previously unknown and unrecorded cultural resources may be unearthed during excavation and grading activities for individual projects. If previously unknown potentially unique buried archaeological resources are uncovered during excavation or construction, significant impacts could occur. Therefore, mitigation will be implemented that would require site-specific studies to identify potentially significant historical, archaeological, and paleontological resources. Additional studies would minimize potential impacts to historical, archaeological, and paleontological resources.

Where a future AGSP project is proposed within an existing facility that has been totally disturbed due to it undergoing past engineered site preparation (such as a roadway or engineered building), the agency implementing the AGSP project will not be required to complete a follow-on cultural resources report (Phase I Cultural Resources Investigation). Future AGSP projects that are located within undisturbed areas will require a follow-on Phase I Cultural Resources Investigation. Further, mitigation measures are provided below that address the potential for multiple phases of studies that may be necessary to properly identify and evaluate potential cultural resources for a given AGSP project. It can be anticipated that projects proposed under the AGSP may involve modifications to or may otherwise encounter common infrastructure features that are more than 50 years of age, but have a low potential to be considered historically significant, such as existing roadways and individual electric distribution poles, as well as numerous historic-period buildings that are adjacent to the project boundaries but are unlikely to receive any direct or indirect impact. Impacts would be the same as Project Category 1 and 2.

Prior to the field survey, historic maps dated 1858-1967 and aerial photographs taken in 1938-1968 were reviewed systematically to establish past land use and development patterns in the project vicinity, and to identify potential historic-period features within the planning area (GLO 1858; 1876; USGS 1901-1967; NETR Online 1938-1968). Buildings or structures that postdate 1972 are less than 50 years old at this time and generally do not meet the requirement for potential “historical resources” unless they demonstrate extraordinary merits in architecture, construction, or aesthetics. Therefore, they were excluded from further consideration in this study in the absence of such merits.

Based on these criteria, a total of 315 buildings or group of buildings in the planning area that have not been previously recorded or evaluated for CEQA-compliance purposes, most of them residential properties, are considered to be potential "historical resources." These properties, listed in Appendix 2 of the first CRM TECH study, will require proper evaluation under CEQA provisions when involved in future projects, along with the property that was previously recorded as 36-013750, but not evaluated.

Using the list in Appendix 2 of the first CRM TECH study as a guide, on May 8 and 9, 2017, CRM TECH field director Daniel Ballester, M.S., and project archaeologist Nina Gallardo, B.A, carried out the field reconnaissance by driving along each street in the planning area and visually inspecting all built-environment features encountered. In addition, areas where archaeological resources were previously identified in the planning area were intuitively inspected on foot as warranted. The results of the survey efforts indicate that the planning area lies in a mixed-use area where the streets are lined with residential and commercial properties interspersed with stretches of vacant land. Most of the developed lots are 50-100 feet in width, but several exceed 300 feet in width. The larger parcels are sometimes occupied by several buildings of various vintage.

Two older single-family residential neighborhoods dating to the 1959-1968 era (NETR Online 1959; 1968) were found to be relatively intact, one occupying three blocks on either side of Del Rosa Drive between Third and Fifth Streets, and one located between Victoria and Central Avenues and between Fifth and Sixth Street. Of these, the former consists of some 120 residential properties while the latter comprises some 50-60.

The vast majority of the 315 properties listed in Appendix 2 of the CRM TECH study evidently date to the post-WWII boom period of circa 1945 to the late 1960s, and their overall appearance is consistent to the prevailing architectural trend and building practices of the time, while three of the properties may predate WWII (NETR Online 1938-1968). Although these buildings appear to retain at least a minimally recognizable level of historical character, nearly all of them have been altered to varying degrees, with replacement windows, new sidings and roofs, and horizontal or vertical additions the most common modifications.

The ground surface in most of the planning area has been extensively disturbed by past development activities, most notably the construction of the buildings, roads, and other infrastructure features, which significantly reduces the sensitivity of the planning area for archaeological resources from the prehistoric or early historic period. No physical remnants were observed of any of the six early ditches listed in Table 4.6-1, nor were any features or artifacts associated with Site 36-010820, the San Bernardino, Arrowhead and Waterman Railroad, found along its former alignment. At Site 36-029563, however, the fragmented irrigation features recorded in 2015 remain extant in a vacant field between Fifth Street and Sixth Street, to the east of Del Rosa Drive (Appendix 3 of the first CRM TECH study).

In summary, seven of the eight archaeological sites previously identified as lying within, partially within, or adjacent to the planning area (Table 4.6-1), representing six 19th century irrigation ditches and the San Bernardino, Arrowhead and Waterman Railroad, have evidently been obliterated by past development. However, in light of their potential local historic interest, it is recommended that, prior to the commencement of any proposed project in the immediate vicinity of any of these sites (Appendix 3), further historical research be completed to establish their precise locations in relation to the project area, and an intensive-level archaeological field survey and, if necessary, an extended Phase I survey be conducted in the vicinity to ascertain the

presence or absence of any surface or subsurface remains that may be impacted by future development.

The last remaining known archaeological site in the planning area, 36-029563, consists of a group of abandoned irrigation features from the late historic period. Generally speaking, such minor, fragmented irrigation features of similar age, virtually ubiquitous on agricultural land or former agricultural land in southern California, are unlikely to qualify as “historical resources” under CEQA guidelines. Nevertheless, since SCCIC records contain no indication that it has been formally evaluated for statutory compliance purposes, Site 36-029563 will need to be considered a potential “historical resource” that requires proper evaluation unless the 2015 survey report cited in the existing site record (Ehringer et al. 2015) becomes available for review and proves to contain an adequate evaluation.

The results of the records search indicate that 95 buildings or groups of building were previously recorded within the planning area (Table 4.6-2), and 94 of them have been evaluated as not being eligible for listing in the National Register of Historic Places or the California Register of Historical Resources. As such, these 94 properties do not meet CEQA’s definition of “historical resources,” leaving only one, 36-013750, consisting of a shed and a garage from a former residential property at 27262 Meines Street, to be evaluated under CEQA provisions in the future. However, the present study identified a total of 315 additional buildings or groups of buildings within the planning area that appear to be of historical origin but remain to be recorded and evaluated (Appendix 2 of the first CRM TECH study).

Pursuant to CEQA guidelines, the 316 properties in the planning area with historic-period buildings that have not been evaluated should be treated as potential “historical resources” in the planning process, along with the irrigation features at Site 36-029563. If a proposed project will impact any of these properties, further study will be needed to determine whether the affected buildings or features meet the statutory definition as a “historical resource.” If federal funding, permit, or license is required for the project, they will also need to be addressed as potential “historic properties” under Section 106 of the National Historic Preservation Act.

In general, CEQA guidelines require that the specific area designated for a proposed project be surveyed at an intensive level for both archaeological and built-environment features in a standard Phase I study in order to ensure the proper identification of “historical resources” and “tribal cultural resources.” A program-level study for a general plan or large-scale specific plan, such as this one, cannot be used as a substitute. For projects to be proposed under the Fifth and Third Street Corridor Specific Plan, CEQA’s requirement for Phase I cultural resources surveys remains valid, since this study did not entail an intensive-level archaeological survey of the entire planning area, unless an adequate Phase I study was completed on the property within the past five years. Meanwhile, the approval of all future projects in the planning area should incorporate the standard condition that all buried cultural materials discovered during earth-moving operations be examined and evaluated by a qualified archaeologist before any further ground disturbances.

City Creek Bypass Channel

The purpose of this study is to identify any cultural resources within the project area and assist IVDA in determining whether such resources meet the official definition of “historical resources” as provided in the California Public Resources Code, in particular CEQA. According to PRC §5020.1(j), “‘historical resource’ includes, but is not limited to, any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.”

More specifically, CEQA guidelines state that the term “historical resources” applies to any such resources listed in or determined to be eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the lead agency (Title 14 CCR §15064.5(a)(1)-(3)). Regarding the proper criteria for the evaluation of historical significance, CEQA guidelines mandate that “generally a resource shall be considered by the lead agency to be ‘historically significant’ if the resource meets the criteria for listing on the California Register of Historical Resources” (Title 14 CCR §15064.5(a)(3)). A resource may be listed in the California Register if it meets any of the following criteria:

- (1) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
- (2) Is associated with the lives of persons important in our past.
- (3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- (4) Has yielded, or may be likely to yield, information important in prehistory or history. (PRC §5024.1(c))

In summary of the research results presented above, the only potential “historical resource” identified within the project area during this study is Site 36-033079, representing the City Creek Bypass Channel itself, which was constructed in the 1940s-1950s, at least partially during the construction of Norton Air Force Base in 1940-1941. The site was previously recorded in the eastern portion of the project area in 2018 and 2019, and it was found not to be eligible for listing in the National Register of Historic Places or the California Register of Historical Resources at the time (Tang et al. 2018:16; 2019:16; Gallardo 2018:2; see Appendix 3 of the second CRM TECH study). The present study expanded the site boundary to include the entire three-mile length of the channel within the project area but did not encounter any new data that would warrant a revision of the previous evaluation.

The City Creek Bypass Channel is a peripheral feature associated, at least partially, with the establishment of a WWII-era military base but does not demonstrate a unique or particularly close association with that event or with any other events or persons of recognized historic significance. Simple in design and utilitarian in character, the channel and its associated features, such as the bridges and culverts, do not stand out as important examples of any style, type, period, region, or method of construction, nor are they known to represent the work of a prominent architect, designer, engineer, or builder. Finally, as a late-historic-period infrastructure feature of standard construction, the channel demonstrates little potential for any important historical or archaeological information.

Based on these considerations, and in light of the criteria listed above, Site 36-033079 does not appear to meet any of the criteria for listing in the California Register of Historical Resources and thus does not qualify as a “historical resource.” No other potential “historical resources” of either prehistoric or historical origin were identified throughout the various avenues of research. Therefore, the present study concludes that no “historical resources” are present within the project area.

CEQA establishes that a project that may cause a substantial adverse change in the significance of a “historical resource” or a “tribal cultural resource” is a project that may have a significant effect on the environment (PRC §21084.1-2). “Substantial adverse change,” according to PRC §5020.1(q), “means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired.”

In conclusion, the present study finds that the only historical/archaeological site present within the project area, 36-033079, does not constitute a “historical resource” under CEQA provisions. However, the NAHC has reported the presence of unspecified Native American cultural resource(s) in the project vicinity and referred further inquiry to the San Manuel Band of Mission Indians. According to CEQA guidelines, the identification of “tribal cultural resources” is beyond the scope of this study and needs to be addressed through government-to-government consultations between IVDA and the pertinent Native American groups pursuant to Assembly Bill (AB) 52. Therefore, CRM TECH presents the following recommendations to IVDA:

- The proposed project will not cause a substantial adverse change to any known “historical resources.”
- A tentative conclusion of *No Impact* on cultural resources appears to be appropriate for this project, pending completion of the AB 52 consultation process to ensure the proper identification of potential “tribal cultural resources.”
- No additional cultural resources investigation will be necessary for the project unless construction plans undergo such changes as to include areas not covered by this study.
- If buried cultural materials are encountered during any earth-moving operations associated with the project, all work in the immediate area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

CUL-1 Would the project cause a substantial adverse change in the significance of a historical resource pursuant 15064.4.?

Level of Significant Impact before Mitigation: Potentially Significant

Based on the preceding analyses of historic resources within the project area (AGSP planning area and the City Creek Channel) there is a low potential to encounter significant historical resources. A small potential exists to encounter subsurface historical resources during construction activities; therefore, mitigation is provided to address this potential to significantly impact such resources. Similarly, it is possible that some of the buildings within the project area may qualify as significant historical resources, so mitigation has been identified to address this circumstance. With implementation of mitigation measures **CUL-1 through CUL-3** for future site-specific projects, potential historical resource impacts can be reduced to a less than significant impact.

Within the City Creek Channel, the only required mitigation is **CUL-1**.

Level of Significance After Mitigation: Less Than Significant

CUL-2 Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.4.?

Level of Significant Impact before Mitigation: Potentially Significant

The cultural resources evaluation identified relatively few prehistoric resource sites within the project area. Much of the project area has been disturbed by previous development and farming activities. Regardless, a potential exists to encounter subsurface archaeological resources in the existing open areas that have experienced only surficial impact in the past. The accidental exposure of subsurface archaeological resources of significance can be mitigated through implementing mitigation measures **CUL-1 through CUL-3**. Thus, with implementation of the referenced mitigation measures, potential archaeological resource impacts can be controlled to a less than significant impact level.

Level of Significance After Mitigation: Less Than Significant

CUL-3 Disturb any human remains, including those interred outside of formal cemeteries?

Level of Significance Before Mitigation: Less Than Significant

Since the proposed AGSP project is at the programmatic level, specific project locations and design elements have yet to be finalized for a majority of the AGSP Projects. There are currently no known cemeteries located within the AGSP project area. For potential human remains outside of a designated cemetery in the event that human remains are inadvertently discovered during project construction activities, the human remains could be inadvertently damaged, which could result in a significant impact. Implementation of the proposed project would comply with provisions of state law regarding discovery of human remains, including PRC Section 5097.98 and Health and Safety Code Section 7050.5. If human remains are accidentally exposed during site grading, Section 7050.5 of the California Health and Safety Code requires a contractor to immediately stop work in the vicinity of the discovery and notify the County Coroner. The Coroner must then determine whether the remains are human and if such remains are human, the Coroner must determine whether the remains are or appear to be of Native American origin. If deemed potential Native American remains, the Coroner contacts the Native American Heritage Commission (NAHC) to identify the most likely affected tribe and/or most likely descendant (MLD). Until the landowner has conferred with the MLD, the Implementing Agency shall ensure that the immediate vicinity where the discovery occurred is not disturbed by further activity, is adequately protected according to generally accepted cultural or archaeological standards or practices, and that further activities consider the possibility of multiple burials. Since this process is mandatory, no specific mitigation is required to ensure that the impacts to human remains will be less than significant.

Mitigation Measures: None Required

Level of Significance After Mitigation: Less Than Significant

4.6.7 Mitigation Measures

CUL-1 Where a future discretionary project requiring a Negative Declaration or follow-on EIR is proposed within an existing facility that has been totally disturbed due to it undergoing past engineered site preparation (such as a roadway or engineered building site), the agency implementing the AGSP project will not be required to complete a follow-on cultural resources report

Where a Phase I Cultural Resources Investigation is not required or at any location where a subsurface cultural resource is accidentally exposed, the following shall be required to minimize impacts to any accidentally exposed cultural resource materials:

- Should any cultural resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the Implementing Agency's onsite inspector. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.***

CUL-2 Where a future discretionary project requiring a Negative Declaration or follow-on EIR is proposed within an undisturbed site and/or a site that will require

substantial earthmoving activities and/or excavation, a Phase I Cultural Resources Investigation is required, the following phases of identification, evaluation, mitigation, and monitoring shall be followed for a given AGSP project:

1. ***Phase I (Identification):*** A Phase I Investigation to identify historical, archaeological, or paleontological resources in a project area shall include the following research procedures, as appropriate:
 - *Focused historical/archaeological resources records searches at SCCIC and/or EIC, depending on the project location, and paleontological resources records searches by NHMLAC, SBCM, and/or the Western Science Center in Hemet.*
 - *Historical background research, geoarchaeological profile analysis, and paleontological literature review;*
 - *Consultation with the State of California Native American Heritage Commission, Native American tribes in the surrounding area, pertinent local government agencies, and local historic preservation groups;*
 - *Field survey of the project area by qualified professionals of the pertinent discipline and at the appropriate level of intensity as determined on the basis of sensitivity assessment and site conditions;*
 - *Field recordation of any cultural resources encountered during the survey and proper documentation of the resources for incorporation into the appropriate inventories or databases.*
2. ***Phase II (Evaluation):*** If cultural resources are encountered in a project area, a Phase II investigation shall be required to evaluate the potential significance of the resources in accordance with the statutory/regulatory framework outlined above. A typical Phase II study consists of the following research procedures:
 - *Preparation of a research design to discuss the specific goals and objectives of the study in the context of important scientific questions that may be addressed with the findings and the significance criteria to be used for the evaluation, and to formulate the proper methodology to accomplish such goals;*
 - *In-depth exploration of historical, archaeological, or paleontological literature, archival records, as well as oral historical accounts for information pertaining to the cultural resources under evaluation;*
 - *Fieldwork to ascertain the nature and extent of the archaeological/paleontological remains or resource-sensitive sediments identified during the Phase I study, such as surface collection of artifacts, controlled excavation of units, trenches, and/or shovel test pits, and collection of soil samples;*
 - *Laboratory processing and analyses of the cultural artifacts, fossil specimens, and/or soil samples for the proper recovery, identification, recordation, and cataloguing of the materials collected during the fieldwork and to prepare the assemblage for permanent curation, if warranted.*
3. ***Phase III (Mitigation):*** For resources that prove to be significant under the appropriate criteria, mitigation of potential project impact is required. Depending on the characteristics of each resource type and the unique aspects of significance for each individual resource, mitigation may be accomplished through a variety of different methods, which shall be determined by a qualified archaeologist, paleontologist, historian, or other applicable professional in the “cultural resources” field. Typical mitigation for historical, archaeological, or paleontological resources, however, may focus on the following procedures, aimed mainly at the preservation of

physical and/or archival data about a significant cultural resource that would be impacted by the project:

- *Data recovery through further excavation at an archaeological site or a paleontological locality to collect a representative sample of the identified remains, followed by laboratory processing and analysis as well as preparation for permanent curation;*
 - *Comprehensive documentation of architectural and historical data about a significant building, structure, or object using methods comparable to the appropriate level of the Historic American Buildings Survey (HABS) and the Historic American Engineering Record (HAER) for permanent curation at a repository or repositories that provides access to the public;*
 - *Adjustments to project plans to minimize potential impact on the significance and integrity of the resource(s) in question.*
4. ***Phase III (Monitoring):*** *At locations that are considered sensitive for subsurface deposits of undetected archaeological or paleontological remains, all earth-moving operations shall be monitored continuously or periodically, as warranted, by qualified professional practitioners. Archaeological monitoring programs shall be coordinated with the nearest Native American groups, who may wish to participate.*

CUL-3 *After each phase of the studies required by mitigation measure CUL-2 has been completed, where required, a complete report on the methods, results, and final conclusions of the research procedures shall be prepared and submitted to SCCIC, EIC, NHMLAC, and/or SBCM, as appropriate and in addition to the lead agency for the project, for permanent documentation and easy references by future researchers.*

4.6.8 Cumulative Impact Analysis

Level of Significance Before Mitigation: Potentially Significant

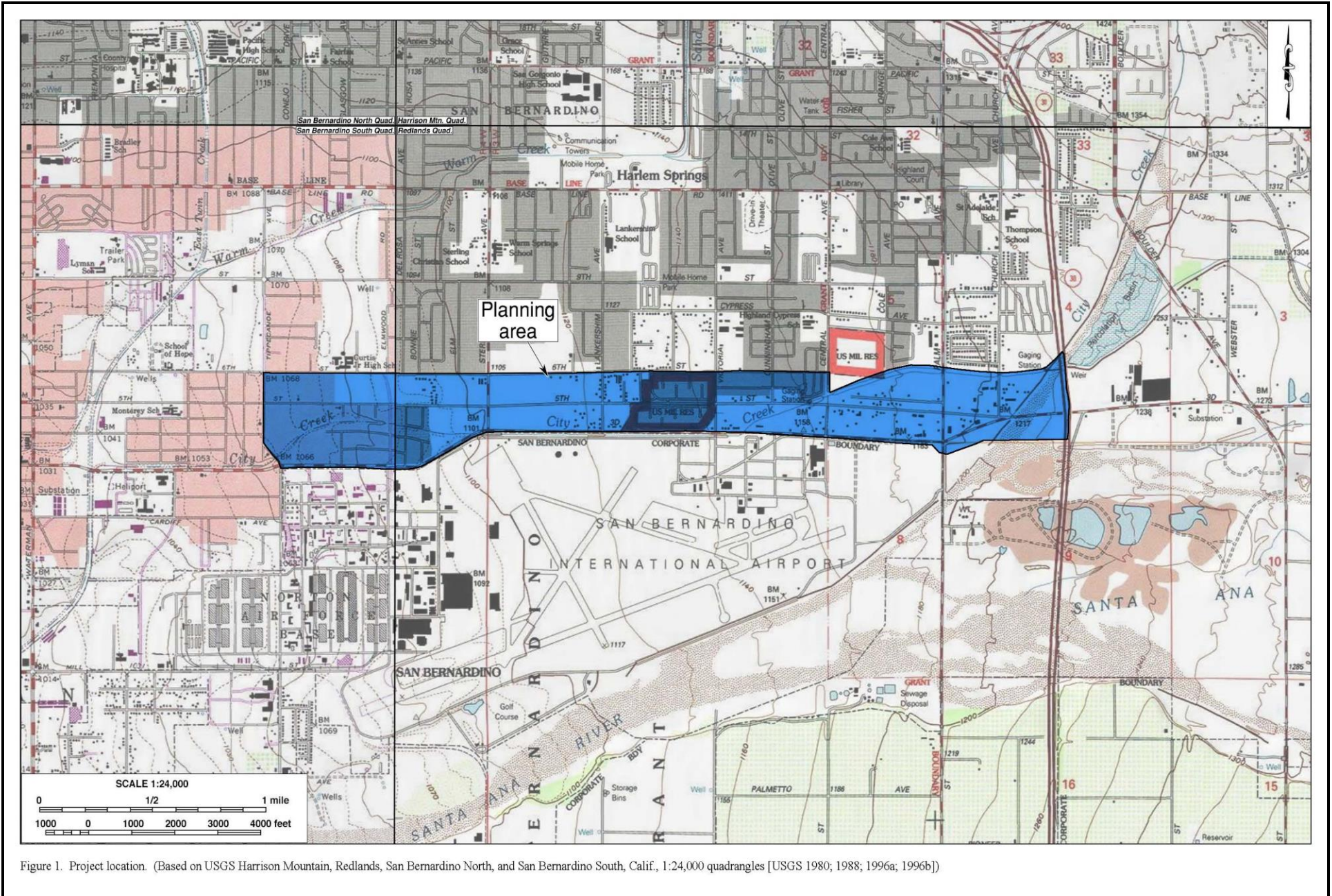
As the project area continues to develop with projected growth, new industrial mixed-use development is forecast to occur. The AGSP project area may contain many historical and archaeological resources that, in many cases, have not been well documented or recorded. Thus, there is the potential for future cumulative development projects in the project area to destroy known or unknown historical and archaeological resources or resource sites.

The potential construction impacts of a project, in combination with other projects as a result of growth in the area, could contribute to a cumulatively significant impact specific historical and archaeological resources. Therefore, the project's cumulative effects to specific historical and/or archaeological resources could be cumulatively considerable and cumulative impacts would be potentially significant. However, implementation of mitigation measures **CUL-1** through **CUL-3** would minimize the proposed projects contribution to cumulative impacts to a level of less than significant.

Level of Significance After Mitigation: Less Than Significant

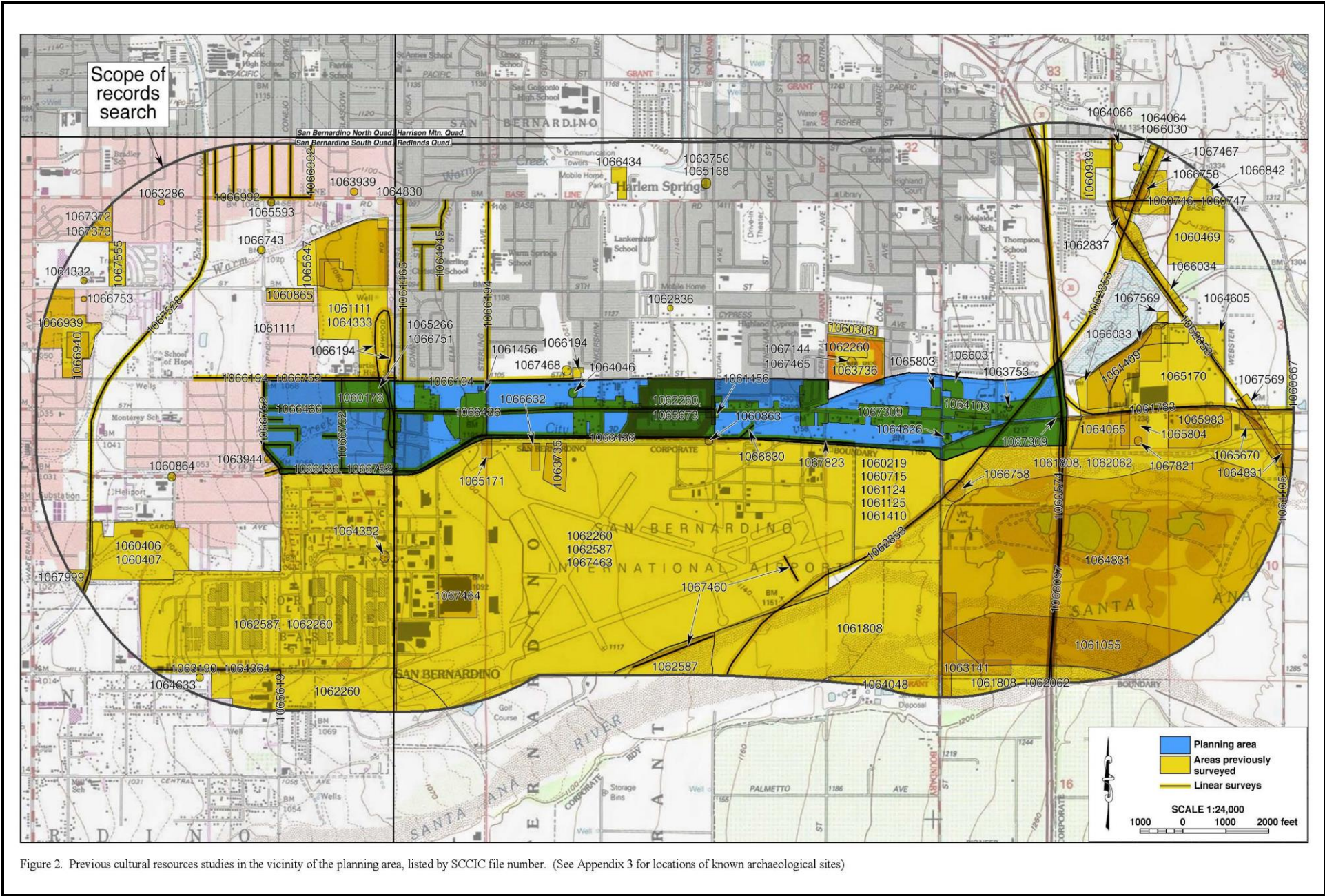
4.6.9 Unavoidable Adverse Impacts

Based on the information presented above, all potential cultural resource impacts would be limited and can be mitigated to a less than significant impact level. As a result, there will not be any unavoidable project specific or cumulative adverse impacts to cultural resources from implementing the AGSP as proposed. The project cultural resource impacts are less than significant.



SOURCE: CRM TECH, Historical/Archaeological Resources Reconnaissance Report, December 8, 2017

FIGURE 4.6-1



SOURCE: CRM TECH, Historical/Archaeological Resources Reconnaissance Report, December 8, 2017

FIGURE 4.6-2

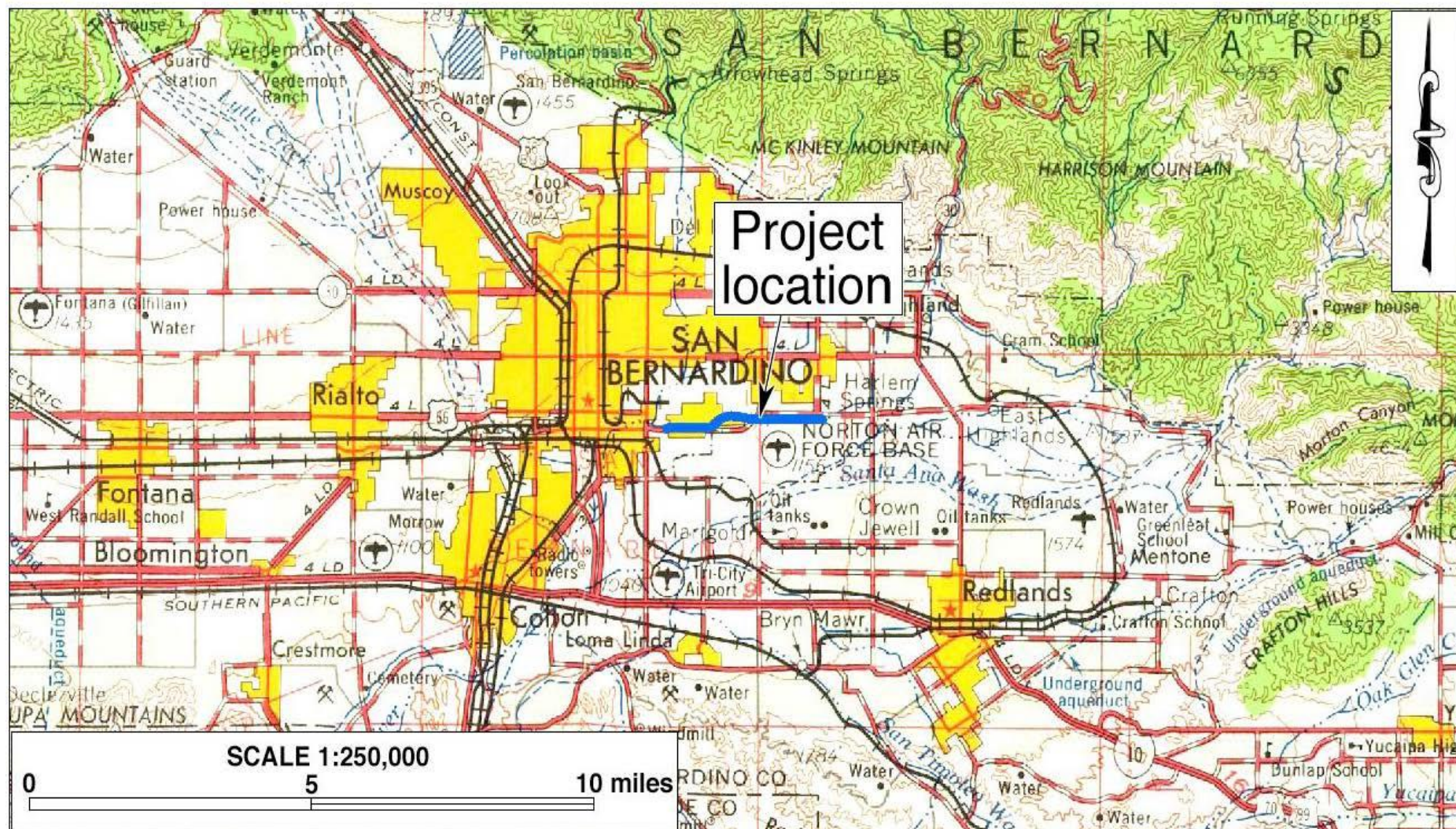


Figure 1. Project vicinity. (Based on USGS San Bernardino, Calif., 120'x60' quadrangle [USGS 1969])

SOURCE: CRM TECH, Historical/Archaeological Resources Survey Report, City Creek Channel, January 30, 2020

FIGURE 4.6-3

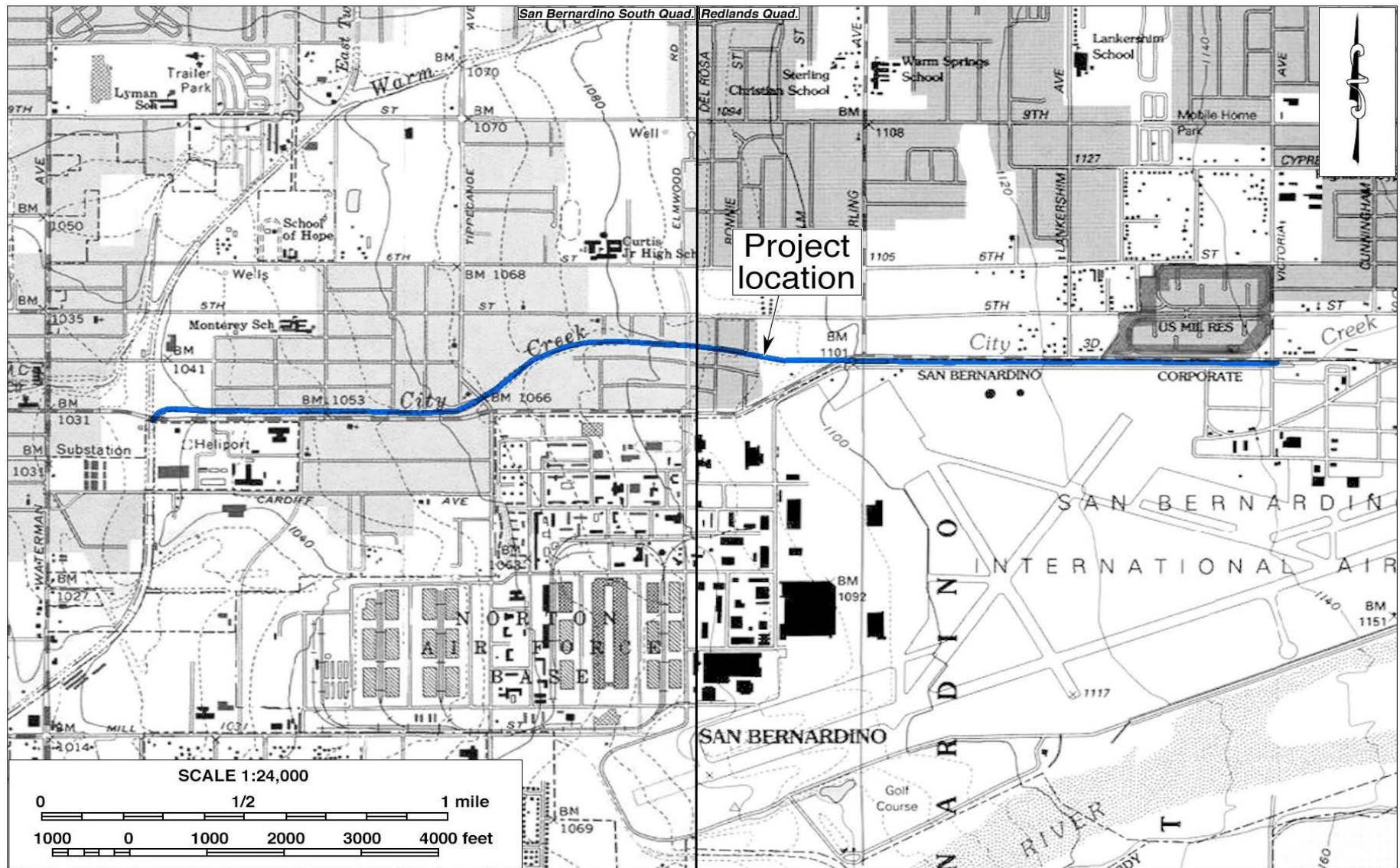


Figure 2. Project area. (Based on USGS San Bernardino South and Redlands, Calif., 7.5' quadrangles [USGS 1980; 1996])

SOURCE: CRM TECH, Historical/Archaeological Resources Survey Report, City Creek Channel, January 30, 2020

FIGURE 4.6-4



SOURCE: CRM TECH, Historical/Archaeological Resources Survey Report, City Creek Channel, January 30, 2020

FIGURE 4.6-5

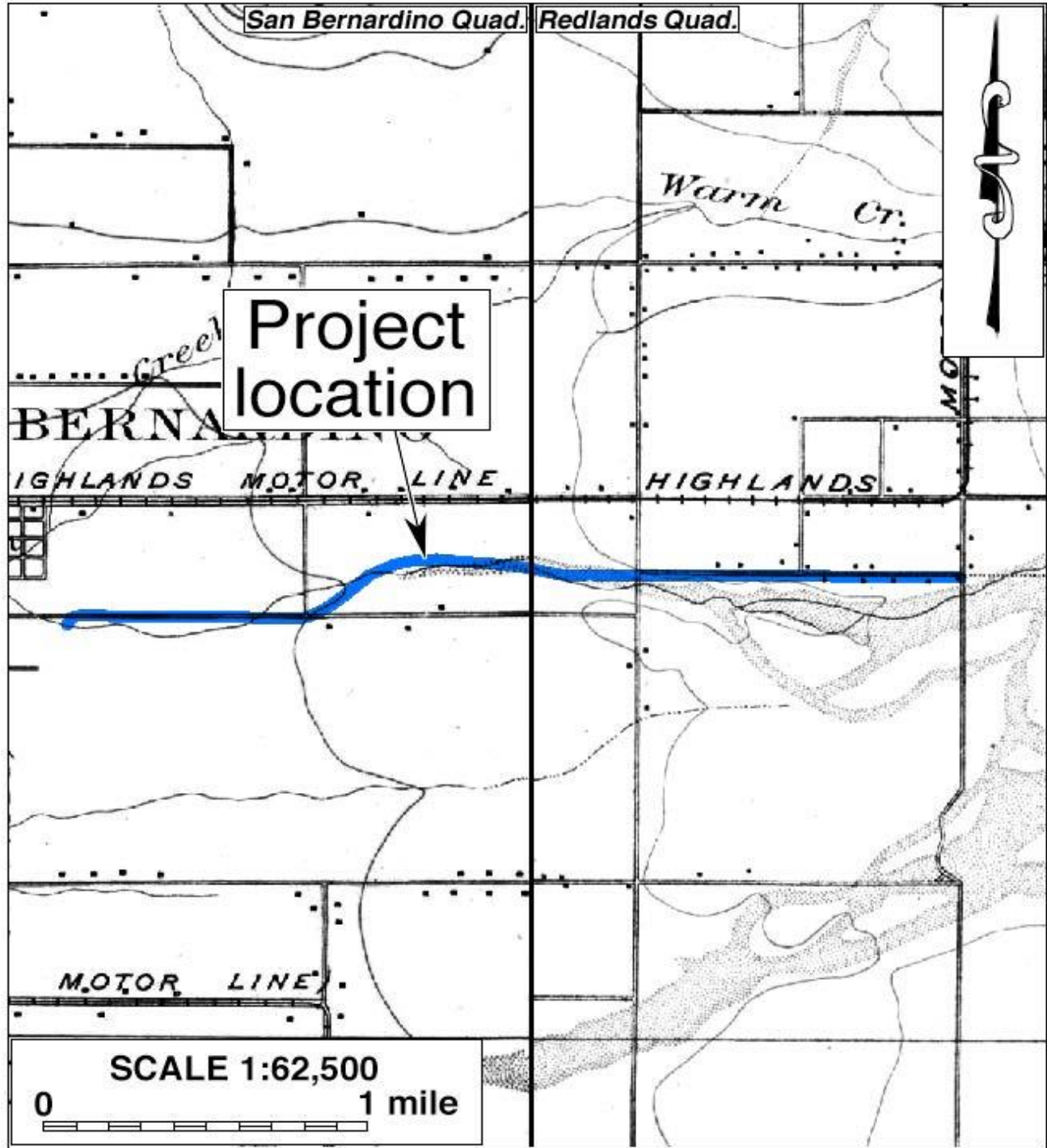


Figure 6. The project area and vicinity in 1893-1899.
 (Source: USGS 1901a; 1901b)

SOURCE: CRM TECH, Historical/Archaeological Resources Survey Report, City Creek Channel, January 30, 2020

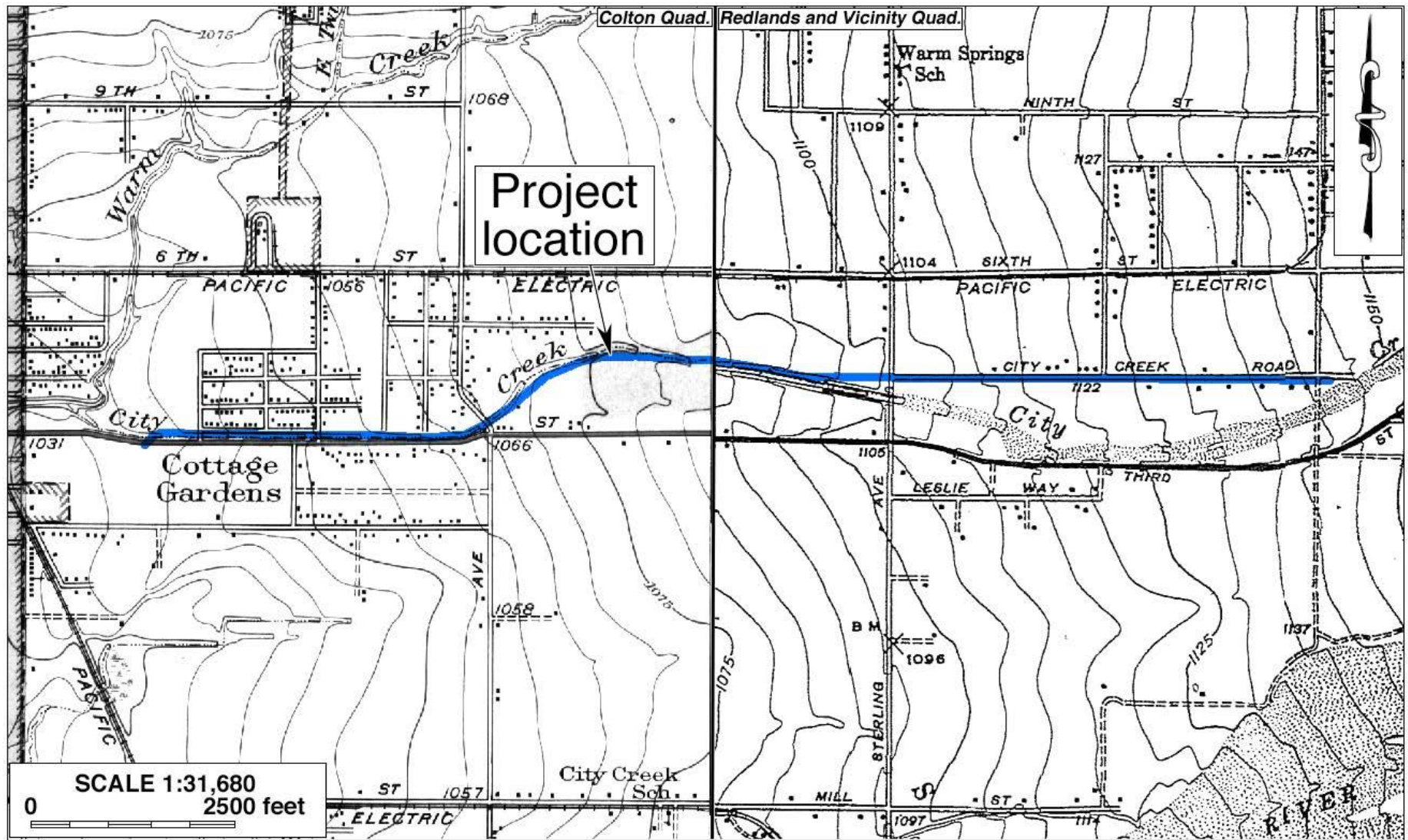


Figure 7. The project area and vicinity in 1936-1939. (Source: USGS 1943a; 1943b)

SOURCE: CRM TECH, Historical/Archaeological Resources Survey Report, City Creek Channel, January 30, 2020

FIGURE 4.6-7

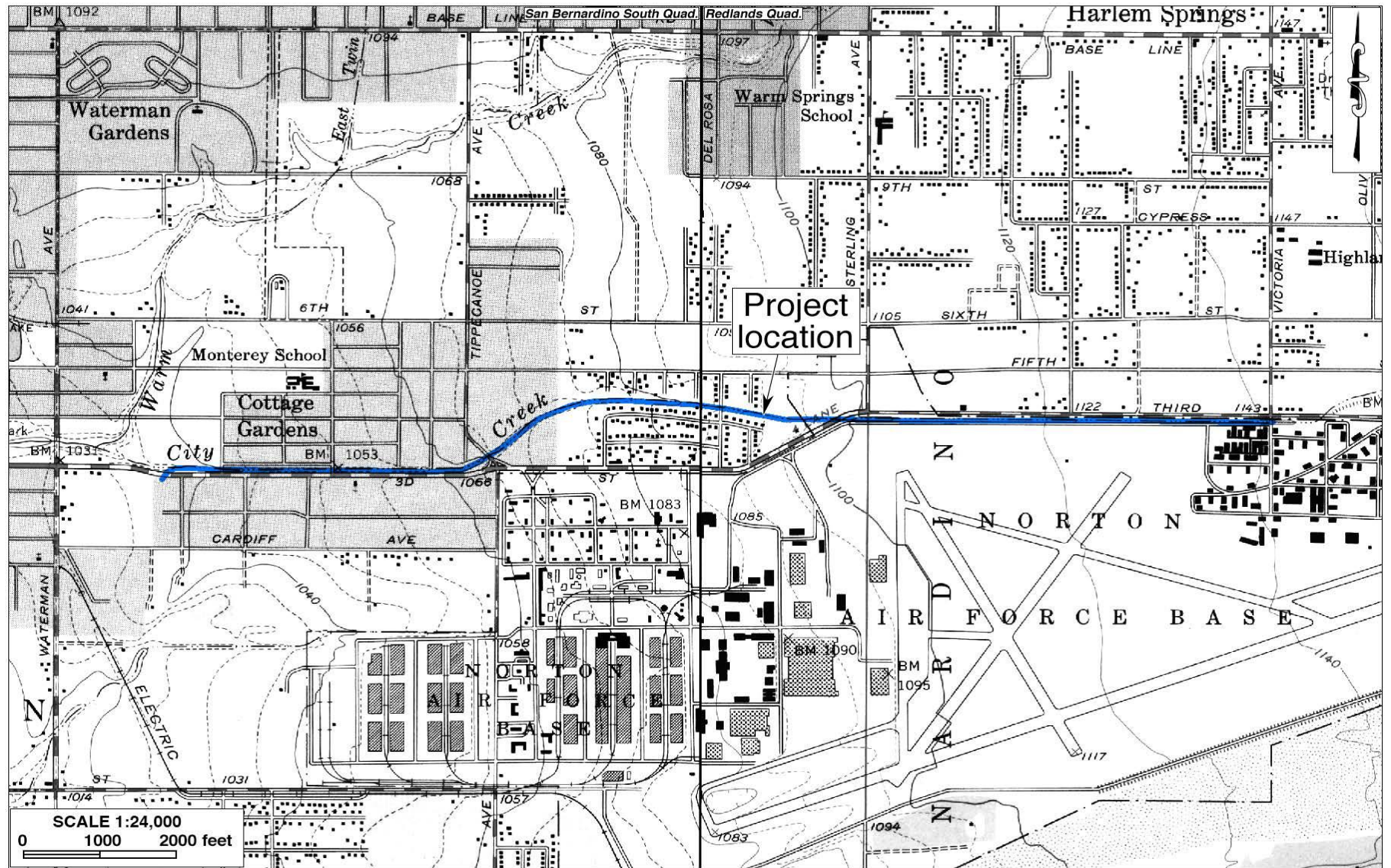


Figure 8. The project area and vicinity in 1952-1954. (Source: USGS 1954a; 1954b)

SOURCE: CRM TECH, Historical/Archaeological Resources Survey Report, City Creek Channel, January 30, 2020

FIGURE 4.6-8



Typical bridges and culverts along the City Creek Channel. *Clockwise from upper left:* Third Street crossing, view to the east; Del Rosa Avenue crossing, view to the southwest; Tippecanoe Avenue crossing, view to the east; Pedley Road crossing, view to the southeast. (Photographs taken on December 10, 2019)

SOURCE: CRM TECH, Historical/Archaeological Resources Survey Report, City Creek Channel, January 30, 2020

FIGURE 4.6-9

4.7 ENERGY

4.7.1 Introduction

This Subchapter will evaluate the environmental impacts to the issue area of energy from implementation of the proposed Airport Gateway Specific Plan (AGSP). The Project area covers approximately 678.13 acres. The Specific Plan area includes parcels in both the City of Highland (484.7 acres) and the City of San Bernardino (193.43 acres). The existing uses within the Specific Plan area include single-family and multi-family residential, small-lot commercial, and industrial uses. Vacant parcels make up approximately one third of the overall acreage within the Specific Plan area. The Airport Gateway Specific Plan (AGSP) would replace the existing uses within the Specific Plan area with approximately 9.27 million square feet of Mixed Use Business Park.

This document is a full-scope Draft Environmental Impact Report (DEIR) for the above-described project and all of the standard issues related to Energy identified in Appendix G of the CEQA Guidelines. Analysis of these issues will determine whether implementation of the AGSP would result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation, or conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The *Airport Gateway Specific Plan Energy Analysis Cities of San Bernardino and Highland* dated January 15, 2021 was prepared by Urban Crossroads to evaluate the potential impacts to energy associated with construction and operation of the proposed AGSP over an approximate 20-year planning horizon. A copy of the Energy Study is provided as Appendix 4 of Volume 2 of this DEIR. Much of the information provided in the following sections is abstracted directly from this technical report with minor edits.

This document is a DEIR for the above-described project and all of the standard issues related to energy identified in Appendix G of the State CEQA Guidelines are evaluated. The issues pertaining to Energy will be discussed below as set forth in the following framework:

- 4.7.1 Introduction
- 4.7.2 Regulatory Setting
- 4.7.3 Environmental Setting
- 4.7.4 Thresholds of Significance
- 4.7.5 Environmental Impacts
- 4.7.7 Cumulative Impacts
- 4.7.9 Unavoidable Significant Adverse Impacts

The following comments from the public regarding energy issues were received during the NOP comment period or at the Scoping Meeting:

Scoping Meeting Speaker #2 Andrea: The speaker states that warehouses in Moreno Valley were built without access to electricity. Edison suggested it would be several years before the infrastructure would be available for these uses. The speaker suggests that back-up generators should not be allowed and development should not be allowed until electricity service is available. The speaker asks what are the ramifications of generators being utilized over a period of years until electricity is available to serve them?

Response: Generators would have to be permitted by the local air district and would specify limitations on operating hours depending on the type of generator selected. Utilizing generators

over a period of years would potentially increase air quality/greenhouse emissions and could result in increased diesel emissions depending on the type of generator. Thus, under Subchapter 4.4, Air Quality, MM **AQ-44**, has been established to ensure that the use of generators is limited to a use period of 9 months, and is not a permanent source of energy for a given project. Most importantly, MM **AQ-44** sets forth that, for projects requiring the operation of a generator for more than a three month period, a Health Risk Assessment (HRA) subject to the provisions of MM **AQ-15** must be prepared. This would ensure that the health risk from future generator use within the AGSP Planning Area would be minimized to a level of less than significant. Furthermore, Subchapter 4.20, Utilities and Service Systems, MM **UTIL-2** has been established to ensure that future development under the AGSP secures a will-serve notice for electricity service from Edison prior to approval of the proposed project by the City within which the development is planned.

The following reference documents were used in preparing this section of the DEIR.

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- Urban Crossroads, January 14, 2021. *Airport Gateway Specific Plan Air Quality Impact Analysis (AQIA)*
- Urban Crossroads, January 15, 2021. *Airport Gateway Specific Plan Energy Analysis (EA)*

4.7.2 Regulatory Setting

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency (EPA) are three federal agencies with substantial influence over energy policies and programs. On the state level, the CPUC and the CEC are two agencies with authority over different aspects of energy. Relevant federal and state energy-related laws and plans are summarized below.

4.7.2.1 Federal Regulations

4.7.2.1.1 Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

The ISTEA promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions.

4.7.2.1.2 The Transportation Equity Act for the 21st Century (TEA-21)

The TEA-21 was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

4.7.2.2 California Regulations

4.7.2.2.1 Integrated Energy Policy Report

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (Public Resources Code § 25301a). The Energy Commission prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report.

The 2019 IEPR was adopted January 31, 2020, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2019 IEPR focuses on a variety of topics such as including the environmental performance of the electricity generation system, landscape-scale planning, the response to the gas leak at the Aliso Canyon natural gas storage facility, transportation fuel supply reliability issues, updates on Southern California electricity reliability, methane leakage, climate adaptation activities for the energy sector, climate and sea level rise scenarios, and the California Energy Demand Forecast. The 2020 IEPR Update is currently in progress but is not anticipated to be adopted until February 2021.

4.7.2.2.2 State of California Energy Plan

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

4.7.2.2.3 California Code Title 24, Part 6, Energy Efficiency Standards

California Code of Regulations (CCR) Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas (GHG) emissions. The 2019 version of Title 24 was adopted by the CEC and became effective on January 1, 2020. The 2019 Title are applicable to building permit applications submitted on or after January 1, 2020. The 2019 Title 24 standards require solar PV systems for new homes, establish requirements for newly constructed healthcare facilities, encourage demand responsive technologies for residential buildings, and update indoor and outdoor lighting standards for nonresidential buildings. The CEC anticipates that single-family homes built with the 2019 standards will use approximately 7% less energy compared to the residential homes built under the 2016 standards. Additionally, after implementation of solar PV systems, homes built under the 2019 standards will use about 53% less energy than homes built under the 2016 standards. Nonresidential buildings will use approximately 30% less energy due to lighting upgrades compared to the prior code.

4.7.2.2.4 AB 1493 Pavley Regulations and Fuel Efficiency Standard

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Under this legislation, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles (cars and light-duty trucks). Although aimed at reducing GHG emissions, specifically, a co-benefit of the Pavley standards is an improvement in fuel efficiency and consequently a reduction in fuel consumption.

4.7.2.2.5 California's Renewable Portfolio Standard (RPS)

First established in 2002 under Senate Bill (SB) 1078, California's Renewable Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable resources to 33% of total retail sales by 2020.

4.7.2.2.6 Clean Energy and Pollution Reduction Act of 2015 (SB 350)

In October 2015, the legislature approved, and the Governor signed SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33% to 50% by 2030, with interim targets of 40% by 2024, and 45% by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the California Energy Commission (CEC), and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

4.7.2.3 City of Highland

City of Highland General Plan Policies

The City of Highland General Plan offers the following Conservation and Open Space Element, Policies and Programs regarding energy:

Conservation and Open Space Element: Goal 5.16

Continue to encourage, support and adopt energy-conservation practices.

Conservation and Open Space Element: Policy 1

Consolidate and adopt energy-saving practices for all City departments.

Conservation and Open Space Element: Policy 2

Monitor energy usage for all City facilities.

Conservation and Open Space Element: Policy 3

Provide information on free energy audits for the public given by public utilities.

Conservation and Open Space Element: Policy 4

Distribute energy-conservation information, in both English and Spanish, to residents and businesses through:

- Links to energy agencies and utilities on City's homepage
- Brochures available at City Hall and other public facilities
- Information and tips on utility bills.

- Outreach programs to schools and businesses.
- Environmental Learning Center

Conservation and Open Space Element: Policy 5

Coordinate energy-related policies and actions with local utilities and energy agencies.

Conservation and Open Space Element: Goal 5.17

Continue to encourage, support and adopt energy-conservation practices.

Conservation and Open Space Element: Policy 1

Encourage energy and environmentally sustainable designs— such as “Green Development Standards”—in the design and approval of new projects.

Conservation and Open Space Element: Policy 2

Orient buildings on the site to maximize the natural ventilation provided by prevailing breezes.

Conservation and Open Space Element: Policy 3

Incorporate passive solar design techniques including building orientation, energy-saving materials, roof overhangs, and window and door placement.

Conservation and Open Space Element: Policy 4

Increase minimum building insulation standards.

Conservation and Open Space Element: Policy 5

Encourage landscape design that cools buildings and blocks solar rays, such as the planting of deciduous trees on south and west facing elevations, and give Title 24 credit for landscaping.

Conservation and Open Space Element: Policy 6

Channel runoff to permeable surfaces through the design of roofs and rain gutter systems and drainage courses.

Conservation and Open Space Element: Policy 7

Encourage energy-efficient retrofitting of existing buildings, where practical, throughout the City including assisting applicants in the installation of more efficient HVAC (heating, ventilation, air conditioning) systems.

Conservation and Open Space Element: Policy 8

Distribute and participate in incentive programs for incorporation of solar and photovoltaic panels (active solar) into existing or new buildings.

Conservation and Open Space Element: Policy 9

Establish a “green building” site design incentive program, such as density or height bonuses, reduced parking requirements, expedited plan check, and recognition programs.

Conservation and Open Space Element: Policy 10

Adopt LEED (Leadership in Energy and Environmental Design) design standards for public buildings.

Conservation and Open Space Element: Policy 11

Participate in the CEEP (Community Energy Efficiency Program) Certificate and Recognition Program.

Conservation and Open Space Element: Policy 12

Encourage a grey water recycling plan.

4.7.2.4 City of San Bernardino

City of San Bernardino General Plan Policies

The City of San Bernardino General Plan offers the following Goals, Policies and Programs regarding energy:

Utilities Element: Goal 9.6

Ensure an adequate, safe, and orderly supply of electrical energy is available to support existing and future land uses within the City on a project level.

Utilities Element: Policy 9.6.1

Require that approval of new development be contingent upon the ability to be served with adequate electrical facilities. (LU-1)

Utilities Element: Policy 9.6.2

Underground utilities, including on-site electrical utilities and connections to distribution facilities, unless such undergrounding is proven infeasible. (U-2)

Utilities Element: Policy 9.6.3

Provide adequate illumination of all streets, alleys (under special conditions), and public areas; upgrading areas that are deficient and maintaining lighting fixtures in good working order.

Utilities Element: Policy 9.6.4

Require improvements to the existing street light system and/or new street light systems necessitated by a new development proposal be funded by that development.

Utilities Element: Policy 9.6.5

Encourage and promote the use of energy-efficient (U.S. Department of Energy "Energy Star" or equivalent) lighting fixtures, light bulbs, and compact fluorescent bulbs in residences, commercial, and public buildings, as well as in traffic signals and signs where feasible. (LU-1)

Utilities Element: Goal 9.7

Ensure an adequate supply of natural gas is available to support existing and future land uses within the City at a project level.

Utilities Element: Policy 9.7.1

Work with the Southern California Gas Company to ensure that adequate natural gas facilities are available to meet the demands of existing and new developments.

Utilities Element: Policy 9.7.2

Require that all new development served by natural gas install on-site pipeline connections to distribution facilities underground, unless such undergrounding is infeasible due to significant environmental or other constraints. (U-2)

Utilities Element: Goal 9.9

Use the City's available geothermal resources as an alternative to natural gas and electricity.

Utilities Element: Policy 9.9.1

Provide for the continued development and expansion of geothermal energy distribution lines. (U-3)
Provide public funding to expand the existing geothermal production and distribution system. (U-3)

Utilities Element: Policy 9.9.2

Promote the use of geothermal resources particularly in the South San Bernardino Area.

Energy and Water Conservation Element: Goal 13.1

Use the City's available geothermal resources as an alternative to natural gas and electricity.

Utilities Element: Policy 13.1.1

Reduce the City's ongoing electricity use by 10 percent and set an example for residents and businesses to follow.

Utilities Element: Policy 13.1.2

Ensure the incorporation of energy conservation features in the design of all new construction and site development in accordance with State Law. (LU-1)

Utilities Element: Policy 13.1.3

Consider enrollment in the Community Energy Efficiency Program (CEEP), which provides incentives for builders who attain energy savings 30 percent above the National Model Energy Code, the Energy Star Program, which is sponsored by the United States Department of Energy and the Environmental Protection Agency and encourages superior energy efficiency by residents and businesses, or the State's Energy Efficiency and Demand Reduction Program, which offer rebates and incentives to agencies and developers who reduce energy consumption and use energy efficient fixtures and energy-saving design elements. (EWC-1)

Utilities Element: Policy 13.1.4

Require energy audits of existing public structures and encourage audits of private structures, identifying levels of existing energy use and potential conservation measures. (EWC-3)

Utilities Element: Policy 13.1.5

Encourage energy-efficient retrofitting of existing buildings throughout the City. (EWC-1)

Utilities Element: Policy 13.1.6

Consider program that awards incentives to projects that install energy conservation measures, including technical assistance and possible low-interest loans. (EWC-1)

Utilities Element: Policy 13.1.7

Ensure that new development consider the ability of adjacent properties to utilize energy conservation design. (LU-1 and EWC-1)

Utilities Element: Policy 13.1.8

Educate the public regarding the need for energy conservation, environmental stewardship, and sustainability techniques and about systems and standards that are currently available for achieving greater energy and resource efficiency, such as the U.S. Green Building Council's "Leadership in Energy and Environmental Design" (LEED) standards for buildings.

Utilities Element: Policy 13.1.9

Encourage increased use of passive and active solar and wind design in existing and new development (e.g., orienting buildings to maximize exposure to cooling effects of prevailing winds, daylighting design, natural ventilation, space planning, thermal massing and locating landscaping and landscape structures to shade buildings). (LU-1)

Utilities Element: Policy 13.1.10

Consider adopting an ordinance relating to energy conservation, environmental stewardship, and sustainability for new development that incorporates the LEED standards.

4.7.3 Environmental Setting: Energy

4.7.3.1 Overview

The most recent data for California's estimated total energy consumption and natural gas consumption is from 2018, released by the United States (U.S.) Energy Information Administration's (EIA) California State Profile and Energy Estimates in 2020 and included:

- Approximately 7,967 trillion British Thermal Unit (BTU) of energy was consumed
- Approximately 681 million barrels of petroleum
- Approximately 2,137 billion cubic feet of natural gas
- Approximately 1 million short tons of coal

The California Energy Commission’s (CEC) Transportation Energy Demand Forecast 2018-2030 was released in order to support the 2017 Integrated Energy Policy Report. The Transportation Energy Demand Forecast 2018-2030 lays out graphs and data supporting their projections of California’s future transportation energy demand. The projected inputs consider expected variable changes in fuel prices, income, population, and other variables. Predictions regarding fuel demand included:

- Gasoline demand in the transportation sector is expected to decline from approximately 15.8 billion gallons in 2017 to between 12.3 billion and 12.7 billion gallons in 2030
- Diesel demand in the transportation sector is expected to rise, increasing from approximately 3.7 billion diesel gallons in 2015 to approximately 4.7 billion in 2030
 - Data from the Department of Energy states that approximately 3.9 billion gallons of diesel fuel were consumed in 2017

The most recent data provided by the EIA for energy use in California by demand sector is from 2017 and is reported as follows:

- Approximately 40.3% transportation;
- Approximately 23.1% industrial;
- Approximately 18.0% residential; and
- Approximately 18.7% commercial

In 2019, total system electric generation for California was 277,704 gigawatt hours (GWh). California’s massive electricity in-state generation system generated approximately 200,475 GWh which accounted for approximately 72% of the electricity it uses; the rest was imported from the Pacific Northwest (9%) and the U.S. Southwest (19%). Natural gas is the main source for electricity generation at 47% of the total in-state electric generation system power as shown in Table 4.7-1.

**Table 4.7-1
 TOTAL ELECTRICITY SYSTEM POWER (CALIFORNIA 2019)**

Fuel Type	California In-State Generation (GWh)	Percent of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	California Power Mix (GWh)	Percent California Power Mix
Coal	248	0.12%	219	7,765	7,985	10.34%
Natural Gas	86,136	42.97%	46	8,859	8,906	11.53%
Oil	36	0.02%	0	0	0	0.00%
Other (Waste Heat/ Petroleum Coke)	411	0.20%	0	11	11	0.01%
Nuclear	16,163	8.06%	0	8,743	8,743	11.32%
Large Hydro	33,145	16.53%	5,071	1,071	6,142	7.95%
Unspecified	0	0.00%	7,979	13,767	21,746	28.16%
Non-Renewable and Unspecified Totals	136,139	67.91%	13,315	40,218	53,533	69.32%
Biomass	5,851	2.92%	903	33	936	1.21%
Geothermal	10,943	5.46%	99	2,218	2,318	3.00%
Small Hydro	5,349	2.67%	292	4	296	0.38%
Solar	28,513	14.22%	282	5,295	5,577	7.22%

Fuel Type	California In-State Generation (GWh)	Percent of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	California Power Mix (GWh)	Percent California Power Mix
Wind	13,680	6.82%	9,038	5,531	14,569	18.87%
Renewable Totals	64,336	32.09%	10,615	13,081	23,696	30.68%

Source: California Energy Commission's 2019 Total System Electric Generation

An updated summary of, and context for energy consumption and energy demands within the State, is presented in “U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts” excerpted below:

- California was the seventh-largest producer of crude oil among the 50 states in 2018, and, as of January 2019, it ranked third in oil refining capacity.
- California is the largest consumer of jet fuel among the 50 states and accounted for one-fifth of the nation’s jet fuel consumption in 2018.
- California's total energy consumption is second highest in the nation, but, in 2018, the state's per capita energy consumption was the fourth-lowest, due in part to its mild climate and its energy efficiency programs.
- In 2018, California ranked first in the nation as a producer of electricity from solar, geothermal, and biomass resources and fourth in the nation in conventional hydroelectric power generation.
- In 2018, large- and small-scale solar photovoltaic (PV) and solar thermal installations provided 19% of California’s net electricity generation.

As indicated above, California is one of the nation’s leading energy-producing states, and California’s per capita energy use is among the nation’s most efficient. Given the nature of the Project, the remainder of this discussion will focus on the three sources of energy that are most relevant to the project—namely, electricity, natural gas, and transportation fuel for vehicle trips associated with the uses planned for the Project.

4.7.3.2 Electricity

The usage associated with electricity use was calculated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2. The Southern California region’s electricity reliability has been of concern for the past several years due to the planned retirement of aging facilities that depend upon once-through cooling technologies, as well as the June 2013 retirement of the San Onofre Nuclear Generating Station (San Onofre). While the once-through cooling phase-out has been ongoing since the May 2010 adoption of the State Water Resources Control Board’s once-through cooling policy, the retirement of San Onofre complicated the situation. California ISO studies revealed the extent to which the South Coast Air Basin (SCAB) and the San Diego Air Basin (SDAB) region were vulnerable to low-voltage and post-transient voltage instability concerns. A preliminary plan to address these issues was detailed in the 2013 Integrative Energy Policy Report (IEPR) after a collaborative process with other energy agencies, utilities, and air districts. Similarly, the subsequent 2018 and 2019 IEPR’s identify broad strategies that are aimed at maintaining electricity system reliability.

Electricity is currently provided to the Project area by Southern California Edison (SCE). SCE provides electric power to more than 15 million persons in 15 counties and in 180 incorporated cities, within a service area encompassing approximately 50,000 square miles. Based on SCE’s

2018 Power Content Label Mix, SCE derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers.

California’s electricity industry is an organization of traditional utilities, private generating companies, and state agencies, each with a variety of roles and responsibilities to ensure that electrical power is provided to consumers. The California Independent Service Operator (ISO) is a nonprofit public benefit corporation and that was created to operate as the impartial operator of the State’s wholesale power grid and is charged with maintaining grid reliability, and to direct uninterrupted electrical energy supplies to California’s homes and communities. While utilities still own transmission assets, the ISO routes electrical power along these assets, maximizing the use of the transmission system and its power generation resources. The ISO matches buyers and sellers of electricity to ensure that enough power is available to meet demand. To these ends, every five minutes the ISO forecasts electrical demands, accounts for operating reserves, and assigns the lowest cost power plant unit to meet demands while ensuring adequate system transmission capacities and capabilities.

Part of the ISO’s charge is to plan and coordinate grid enhancements to ensure that electrical power can be provided to California consumers. To this end, providers must file annual transmission expansion/modification plans to accommodate the State’s growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the western United States electrical grid to ensure that adequate power supplies are available to the State. In this manner, continuing reliable and affordable electrical power to existing and new consumers throughout the State is the goal.

Tables 4.7-2 identifies SCE’s specific proportional shares of electricity sources in 2019. As indicated in Table 4.7-2, the 2019 SCE Power Mix has renewable energy at 35.1% of the overall energy resources. Geothermal resources are at 5.9%, wind power is at 11.5%, large hydroelectric sources are at 7.9%, solar energy is at 16.0%, and coal is at 0%.

**Table 4.7-2
 SCE 2019 POWER CONTENT MIX**

Energy Resources	2018 SCE Power Mix
<i>Eligible Renewable</i>	35.1%
Biomass & waste	0.6%
Geothermal	5.9%
Small Hydroelectric	1.0%
Solar	16.0%
Wind	11.5%
<i>Coal</i>	0.0%
<i>Large Hydroelectric</i>	7.9%
<i>Natural Gas</i>	16.1%
<i>Nuclear</i>	8.2%
<i>Other</i>	0.1%
Unspecified Sources of power*	32.6%
Total	100%

* "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources

4.7.3.3 Natural Gas

The following summary of natural gas customers & volumes, supplies, delivery of supplies, storage, service options, and operations is excerpted from information provided by the California Public Utilities Commission (CPUC).

“The CPUC regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller natural gas utilities. The CPUC also regulates independent storage operators: Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.

California's natural gas utilities provide service to over 11 million gas meters. SoCalGas and PG&E provide service to about 5.9 million and 4.3 million customers, respectively, while SDG&E provides service to over 800,000 customers. In 2018, California gas utilities forecasted that they would deliver about 4,740 million cubic feet per day (MMcfd) of gas to their customers, on average, under normal weather conditions.

The overwhelming majority of natural gas utility customers in California are residential and small commercial customers, referred to as "core" customers. Larger volume gas customers, like electric generators and industrial customers, are called "noncore" customers. Although very small in number relative to core customers, noncore customers consume about 65% of the natural gas delivered by the state's natural gas utilities, while core customers consume about 35%.

A significant amount of gas (about 19%, or 1,131 MMcfd, of the total forecasted California consumption in 2018) is also directly delivered to some California large volume consumers, without being transported over the regulated utility pipeline system. Those customers, referred to as "bypass" customers, take service directly from interstate pipelines or directly from California producers.

SDG&E and Southwest Gas' southern division are wholesale customers of SoCalGas, i.e. they receive deliveries of gas from SoCalGas and in turn deliver that gas to their own customers. (Southwest Gas also provides natural gas distribution service in the Lake Tahoe area.) Similarly, West Coast Gas, a small gas utility, is a wholesale customer of PG&E. Some other wholesale customers are municipalities like the cities of Palo Alto, Long Beach, and Vernon, which are not regulated by the CPUC.

Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California gas utilities are Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, Ruby Pipeline, Mojave Pipeline, and Tuscarora. Another pipeline, the North Baja - Baja Norte Pipeline takes gas off the El Paso Pipeline at the California/Arizona border, and delivers that gas through California into Mexico. While the Federal Energy Regulatory Commission (FERC) regulates the transportation of natural gas on the interstate pipelines, and authorizes rates for that service, the California Public Utilities Commission may participate in FERC regulatory proceedings to represent the interests of California natural gas consumers.

The gas transported to California gas utilities via the interstate pipelines, as well as some of the California-produced gas, is delivered into the PG&E and SoCalGas intrastate natural gas

transmission pipelines systems (commonly referred to as California's "backbone" pipeline system). Natural gas on the utilities' backbone pipeline systems is then delivered to the local transmission and distribution pipeline systems, or to natural gas storage fields. Some large volume noncore customers take natural gas delivery directly off the high-pressure backbone and local transmission pipeline systems, while core customers and other noncore customers take delivery off the utilities' distribution pipeline systems. The state's natural gas utilities operate over 100,000 miles of transmission and distribution pipelines, and thousands more miles of service lines.

Bypass customers take most of their deliveries directly off the Kern/Mojave pipeline system, but they also take a significant amount of gas from California production.

PG&E and SoCalGas own and operate several natural gas storage fields that are located within their service territories in northern and southern California, respectively. These storage fields, and four independently owned storage utilities - Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage - help meet peak seasonal and daily natural gas demand and allow California natural gas customers to secure natural gas supplies more efficiently. PG&E is a 25% owner of the Gill Ranch Storage field. These storage fields provide a significant amount of infrastructure capacity to help meet California's natural gas requirements, and without these storage fields, California would need much more pipeline capacity in order to meet peak gas requirements.

Prior to the late 1980s, California regulated utilities provided virtually all natural gas services to all their customers. Since then, the Commission has gradually restructured the California gas industry in order to give customers more options while assuring regulatory protections for those customers that wish to, or are required to, continue receiving utility-provided services.

The option to purchase natural gas from independent suppliers is one of the results of this restructuring process. Although the regulated utilities procure natural gas supplies for most core customers, core customers have the option to purchase natural gas from independent natural gas marketers, called "core transport agents" (CTA). Contact information for core transport agents can be found on the utilities' web sites. Noncore customers, on the other hand, make natural gas supply arrangements directly with producers or with marketers.

Another option resulting from the restructuring process occurred in 1993, when the Commission removed the utilities' storage service responsibility for noncore customers, along with the cost of this service from noncore customers' transportation rates. The Commission also encouraged the development of independent storage fields, and in subsequent years, all the independent storage fields in California were established. Noncore customers and marketers may now take storage service from the utility or from an independent storage provider (if available), and pay for that service, or may opt to take no storage service at all. For core customers, the Commission assures that the utility has adequate storage capacity set aside to meet core requirements, and core customers pay for that service.

In a 1997 decision, the Commission adopted PG&E's "Gas Accord", which unbundled PG&E's backbone transmission costs from noncore transportation rates. This decision gave customers and marketers the opportunity to obtain pipeline capacity rights on PG&E's backbone transmission pipeline system, if desired, and pay for that service at rates authorized by the Commission. The Gas Accord also required PG&E to set aside a certain amount of backbone transmission capacity in order to deliver gas to its core customers. Subsequent Commission

decisions modified and extended the initial terms of the Gas Accord. The "Gas Accord" framework is still in place today for PG&E's backbone and storage rates and services and is now simply referred to as PG&E Gas Transmission and Storage (GT&S).

In a 2006 decision, the Commission adopted a similar gas transmission framework for Southern California, called the "firm access rights" system. SoCalGas and SDG&E implemented the firm access rights (FAR) system in 2008, and it is now referred to as the backbone transmission system (BTS) framework. As under the PG&E backbone transmission system, SoCalGas backbone transmission costs are unbundled from noncore transportation rates. Noncore customers and marketers may obtain, and pay for, firm backbone transmission capacity at various receipt points on the SoCalGas system. A certain amount of backbone transmission capacity is obtained for core customers to assure meeting their requirements.

Many, if not most noncore customers, now use a marketer to provide for several of the services formerly provided by the utility. That is, a noncore customer may simply arrange for a marketer to procure its supplies, and obtain any needed storage and backbone transmission capacity, in order to assure that it will receive its needed deliveries of natural gas supplies. Core customers still mainly rely on the utilities for procurement service, but they have the option to take procurement service from a CTA. Backbone transmission and storage capacity is either set aside or obtained for core customers in amounts to assure very high levels of service.

In order to properly operate their natural gas transmission pipeline and storage systems, PG&E and SoCalGas must balance the amount of gas received into the pipeline system and delivered to customers or to storage fields. Some of these utilities' storage capacity is dedicated to this service, and under most circumstances, customers do not need to precisely match their deliveries with their consumption. However, when too much or too little gas is expected to be delivered into the utilities' systems, relative to the amount being consumed, the utilities require customers to more precisely match up their deliveries with their consumption. And, if customers do not meet certain delivery requirements, they could face financial penalties. The utilities do not profit from these financial penalties - the amounts are then returned to customers as a whole. If the utilities find that they are unable to deliver all the gas that is expected to be consumed, they may even call for a curtailment of some gas deliveries. These curtailments are typically required for just the largest, noncore customers. It has been many years since there has been a significant curtailment of core customers in California."

As indicated in the preceding discussion, natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand. Complementing available natural gas resources, biogas may soon be more widely available via existing delivery systems, thereby increasing the availability and reliability of resources in total. The CPUC oversees utility purchases and transmission of natural gas to ensure reliable and affordable natural gas deliveries to existing and new consumers throughout the State.

Based on information provided by the Project applicant, no natural gas will be used as a result of the project, and as such use of natural gas is not considered in the analysis.

4.7.3.4 Transportation Energy Resources

The Project would generate additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. In March 2019, the Department of Motor Vehicles (DMV) identified 36.4 million registered vehicles in California (Department of Motor

Vehicles, 2019), and those vehicles consume an estimated 17.8 billion gallons of fuel each year¹. Gasoline (and other vehicle fuels) are commercially provided commodities and would be available to the Project patrons and employees via commercial outlets. Although this analysis assumes continued use of vehicles relying on petroleum-based fuels, it is highly likely that regulatory requirements to transition to electricity- or hydrogen-based energy sources will reduce such fuel demand in the future. However, since this transition is poorly defined at this point, this issue is considered too speculative (refer to Section 15145 of the State CEQA Guidelines for a discussion of this issue) and it will not be further examined in this document

California's on-road transportation system includes 394,383 land miles, more than 27.5 million passenger vehicles and light trucks, and almost 8.1 million medium- and heavy-duty vehicles. While gasoline consumption has been declining since 2008, it is still by far the dominant fuel. Petroleum comprises about 91% of all transportation energy use, excluding fuel consumed for aviation and most marine vessels. Nearly 17.8 billion gallons of on-highway fuel are burned each year, including 14.6 billion gallons of gasoline (including ethanol) and 3.2 billion gallons of diesel fuel (including biodiesel and renewable diesel). In 2019, Californians also used 194 million cubic feet of natural gas as a transportation fuel, or the equivalent of 183 million gallons of gasoline.

4.7.4 Thresholds of Significance

In compliance with Appendix G of the *State CEQA Guidelines*, this report analyzes the project's anticipated energy use to determine if the Project would:

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

In addition, Appendix F of the *State CEQA Guidelines*, states that the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas and oil; and
- Increasing reliance on renewable energy sources.

4.7.4.1 Methodology

Information from the CalEEMod Version 2016.3.2 outputs for the *Airport Gateway Specific Plan Air Quality Impact Analysis* (AQIA) was utilized in this analysis, detailing Project-related construction equipment, transportation energy demands, and facility energy demands.

CalEEMod

On October 17, 2017, the SCAQMD, in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the CalEEMod Version 2016.3.2. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources as well as energy usage. Accordingly, the latest version of CalEEMod has been used to determine the proposed Project's anticipated transportation and facility energy demands. Output from the annual construction model runs are provided in Appendices to the AQIA.

¹ Fuel consumptions estimated utilizing information from EMFAC2017.

Emission Factors Model

On August 19, 2019, the EPA approved the 2017 version of the EMISSIONS FACTOR model (EMFAC) web database for use in State Implementation Plan and transportation conformity analyses. EMFAC2017 is a mathematical model that was developed to calculate emission rates, fuel consumption, VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources. This energy study utilizes the different fuel types for each vehicle class from the annual EMFAC2017 emission inventory in order to derive the average vehicle fuel economy which is then used to determine the estimated annual fuel consumption associated with vehicle usage during Project construction and operational activities. For purposes of analysis, the 2021 through 2040 analysis years were utilized to determine the average vehicle fuel economy used throughout the duration of the Project.

4.7.5 Environmental Impacts

- EN-1 Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**
- EN-2 Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?**

CONSTRUCTION ENERGY DEMANDS

The focus of this analysis is to determine the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the proposed Project.

Construction Power Cost

The total Project construction power costs is the summation of the products of the area (sf) by the construction duration and the typical power cost.

Construction is expected to commence in January 2023 and will last through December 2043. The construction schedule utilized in the analysis, shown in Table 4.7-3, represents a “worst-case” analysis scenario. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per CEQA Guidelines (26). The duration of construction activity was based on the 2022 opening year and information provided by the Project Applicant. As shown on Table 4.7-3, construction activities are anticipated to occur over the course of 234 months

**Table 4.7-3
 CONSTRUCTION DURATION**

Phase Name	Start Date	End Date	Days
Demolition	06/01/2022	05/30/2023	260
Site Preparation	05/31/2023	12/12/2023	140
Grading	12/13/2022	07/22/2024	420
Building Construction	07/23/2024	12/31/2043	4,290
Paving	10/05/2038	12/31/2043	585
Architectural Coating	01/13/2032	12/31/2043	2,340

The *2020 National Construction Estimator* identifies a typical power cost per 1,000 sf of construction per month of \$2.38, which was used to calculate the Project's total construction power cost. As shown on Table 4.7-4, the total power cost of the on-site electricity usage during the construction of the Project is estimated to be approximately \$16,477,008.39.

**Table 4.7-4
 CONSTRUCTION POWER COST**

Land Use	Power Cost (per 1,000 SF of construction per month)	Size (1,000 SF)	Construction Duration (months)	Project Construction Power Cost
High-Cube Transload & Short-Term Warehouse	\$2.38	6,310.472	234	\$3,514,428.07
Warehousing	\$2.38	1,352.244	234	\$753,091.73
Research and Development	\$2.38	1,302.161	234	\$725,199.50
Shopping Center	\$2.38	205.483	234	\$114,437.59
Hotel	\$2.38	75.000	234	\$41,769.00
Other Asphalt Surfaces	\$2.38	20,340.592	234	\$11,328,082.50
CONSTRUCTION POWER COST				\$16,477,008.39

* As a conservative measure, the Power Cost is rounded up

Construction Electricity Usage

The total Project construction electricity usage is the summation of the products of the power cost (estimated in Table 4.7-4) by the utility provider cost per kilowatt hour (kWh) of electricity.

The SCE's general service rate schedule were used to determine the Project's electrical usage. As of October 1, 2020, SCE's general service rate is \$0.10 per kilowatt hours (kWh) of electricity for industrial services. As shown on Table 4-3-5, the total electricity usage from on-site Project construction related activities is estimated to be approximately 172,020,759 kWh.

**Table 4.7-5
 CONSTRUCTION ELECTRICITY USAGE**

Land Use	Cost per kWh	Project Construction Electricity Usage (kWh)
High-Cube Transload & Short-Term Warehouse	\$0.10	36,690,798
Warehousing	\$0.10	7,862,314
Research and Development	\$0.10	7,571,118
Shopping Center	\$0.10	1,194,734
Hotel	\$0.10	436,070
Other Asphalt Surfaces	\$0.10	118,265,725
CONSTRUCTION ELECTRICTY USAGE (kWh)		172,020,759

Construction Equipment Fuel Estimates

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction. Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 4.7-6 will operate up to a total of eight (8) hours per day, or more than two-thirds of the period during which construction activities are allowed pursuant to the code. It should be noted that most pieces of equipment would likely operate for fewer hours per day. A summary of construction equipment assumptions by phase is provided in Table 4.7-6.

**Table 4.7-6
 CONSTRUCTION EQUIPMENT ASSUMPTIONS**

Phase Name	Equipment ¹	Amount	Hours Per Day
Demolition	Concrete/Industrial Saws	2	8
	Excavators	5	8
	Rubber Tired Dozers	4	8
Site Preparation	Crawler Tractors	7	8
	Rubber Tired Dozers	5	8
Grading	Crawler Tractors	4	8
	Excavators	4	8
	Graders	2	8
	Rubber Tired Dozers	2	8
	Scrapers	4	8
Building Construction	Cranes	2	8
	Crawler Tractors	5	8
	Forklifts	5	8
	Generator Sets	2	8
	Welders	2	8
Paving	Pavers	4	8
	Paving Equipment	4	8
	Rollers	4	8
Architectural Coating	Air Compressors	2	8

¹ In order to account for fugitive dust emissions, Crawler Tractors were used in lieu of Tractors/Loaders/Backhoes.

Project construction activity timeline estimates, construction equipment schedules, equipment power ratings, load factors, and associated fuel consumption estimates are presented in Table 4.7-6. The aggregate fuel consumption rate for all equipment is estimated at 18.5 horsepower hour per gallon (hp-hr-gal.), obtained from CARB 2018 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines. For the purposes of this analysis, the calculations are based on all construction equipment being diesel-powered which is consistent with industry standards.

**Table 4.7-7
 CONSTRUCTION EQUIPMENT FUEL CONSUMPTION ESTIMATES (1 OF 2)**

Phase Name	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption
Demolition	260	Concrete/Industrial Saws	81	2	8	0.73	946	13,296
		Excavators	158	5	8	0.38	2,402	33,752
		Rubber Tired Dozers	247	4	8	0.40	3,162	44,433
Site Preparation	140	Crawler Tractors	212	7	8	0.43	5,105	38,632
		Rubber Tired Dozers	247	5	8	0.40	3,952	29,907
Grading	420	Crawler Tractors	212	4	8	0.43	2,917	66,227
		Excavators	158	4	8	0.38	1,921	43,618
		Graders	187	2	8	0.41	1,227	27,850
		Rubber Tired Dozers	247	2	8	0.40	1,581	35,888
		Scrapers	367	4	8	0.48	5,637	127,978
Building Construction	4290	Cranes	231	2	8	0.29	1,072	248,551
		Crawler Tractors	212	5	8	0.43	3,646	845,571
		Forklifts	89	5	8	0.20	712	165,107
		Generator Sets	84	2	8	0.74	995	230,630
		Welders	46	2	8	0.45	331	76,803
Paving	2340	Pavers	130	4	8	0.42	1,747	220,997
		Paving Equipment	132	4	8	0.36	1,521	192,340
		Rollers	80	4	8	0.38	973	123,046
Architectural Coating	585	Air Compressors	78	2	8	0.48	599	18,943
CONSTRUCTION FUEL DEMAND (GALLONS DIESEL FUEL)								2,583,570

Diesel fuel would be supplied by existing commercial fuel providers serving the Project area and region². As previously presented in Table 4.7-7, Project construction activities would consume an estimated 2,583,570 gallons of diesel fuel.

Project construction would represent a “single-event” diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

² Based on Appendix A of the CalEEMod User’s Guide, Construction consists of several types of off-road equipment. Since the majority of the off-road construction equipment used for construction projects are diesel fueled, CalEEMod assumes all of the equipment operates on diesel fuel.

Construction Trips and VMT

Based on the CalEEMod, the Trip and VMT are the number and length (in terms VMT³) of on-road vehicle trips for workers, vendors, and hauling for each construction phase. The trips identified in Table 4.7-8 are based on the CalEEMod default parameters, with the exception of trips during demolition which have been adjusted based on information provided by the Project Applicant.

**Table 4.7-8
 CONSTRUCTION TRIPS AND VMT**

Phase Name	Worker Trips / Day	Vendor Trips / Day	Hauling Trips / Day	Worker Trip Length	Vendor Trip Length	Hauling Trip Length
Demolition	28	247	2,278	14.7	6.9	20
Site Preparation	30	133	0	14.7	6.9	20
Grading	40	399	0	14.7	6.9	20
Building Construction	12,275	4,071	0	14.7	6.9	20
Paving	30	0	0	14.7	6.9	20
Architectural Coating	2,455	0	0	14.7	6.9	20

Construction Worker Fuel Estimates

With respect to estimated VMT for the Project, the construction worker trips would generate an estimated 796,765,872 VMT during the 234 months of construction. Based on CalEEMod methodology, it is assumed that 50% of all vendor trips are from light-duty-auto vehicles (LDA), 25% are from light-duty-trucks (LDT1⁴), and 25% are from light-duty-trucks (LDT2⁵). Data regarding Project related construction worker trips were based on CalEEMod defaults utilized within the AQIA.

Vehicle fuel efficiencies for LDA, LDT1, and LDT2 were estimated using information generated within the 2017 version of the EMFAC model developed by CARB. EMFAC2017 is a mathematical model that was developed to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources. EMFAC2017 was run for the LDA, LDT1, and LDT2 vehicle class within the California sub-area for the 2021 through 2040 calendar years. Data from EMFAC2017 is shown in Appendix 4.4 of the Energy Analysis.

Table 4.7-9 provides an estimated annual fuel consumption resulting from LDAs related to the Project construction worker trips. Based on Table 4.7-9, it is estimated that 28,653 gallons of fuel will be consumed related to construction worker trips during full construction of the Project.

³ For purposes of analysis, VMT is calculated by multiplying the number of trips by the trip length.

⁴ Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

⁵ Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

**Table 4.7-9
 CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES – LDA**

Phase Name	Duration (Days)	Worker Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2021						
Demolition	154	14	14.7	31,693	31.01	1,022
2022						
Demolition	106	14	14.7	21,815	31.93	683
Site Preparation	140	15	14.7	30,870	31.93	967
Grading	14	20	14.7	4,116	31.93	129
2023						
Grading	260	20	14.7	76,440	32.93	2,321
2024						
Grading	146	20	14.7	42,924	33.77	1,271
Building Construction	116	6,138	14.7	10,466,518	33.77	309,923
2025						
Building Construction	261	6,138	14.7	23,549,665	34.93	674,199
2026						
Building Construction	261	6,138	14.7	23,549,665	36.03	653,694
2027						
Building Construction	261	6,138	14.7	23,549,665	37.08	107
2028						
Building Construction	260	6,138	14.7	23,459,436	38.07	616,291
2029						
Building Construction	261	6,138	14.7	23,549,665	38.99	604,054
2030						
Building Construction	261	6,138	14.7	23,549,665	39.84	591,177
2031						
Building Construction	261	6,138	14.7	23,549,665	40.51	581,394
2032						
Building Construction	262	6,138	14.7	23,639,893	41.21	573,646
Paving	254	15	14.7	56,007	41.21	1,359
2033						
Building Construction	260	6,138	14.7	23,459,436	41.84	560,633
Paving	260	15	14.7	57,330	41.84	1,370
2034						
Building Construction	260	6,138	14.7	23,459,436	42.41	553,122
Paving	260	15	14.7	57,330	42.41	1,352
2035						
Building Construction	261	6,138	14.7	23,549,665	42.92	548,734
Paving	261	15	14.7	57,551	42.92	1,341

Phase Name	Duration (Days)	Worker Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2036						
Building Construction	262	6,138	14.7	23,639,893	43.36	545,235
Paving	262	15	14.7	57,771	43.36	1,332
2037						
Building Construction	261	6,138	14.7	23,549,665	43.74	538,443
Paving	261	15	14.7	57,551	43.74	1,316
2038						
Building Construction	261	6,138	14.7	23,549,665	44.06	534,496
Paving	261	15	14.7	57,551	44.06	1,306
Architectural Coating	64	1,228	14.7	1,155,302	44.06	26,221
2039						
Building Construction	260	6,138	14.7	23,459,436	44.33	529,188
Paving	260	15	14.7	57,330	44.33	1,293
Architectural Coating	260	1,228	14.7	4,693,416	44.33	105,872
2023						
Building Construction	261	6,138	14.7	23,549,665	44.56	528,539
Paving	261	15	14.7	57,551	44.56	1,292
Architectural Coating	261	1,228	14.7	4,711,468	44.56	105,742
PROJECT CONSTRUCTION WORKER (LDA) FUEL CONSUMPTION						9,834,106

Table 4.7-10 provides an estimated annual fuel consumption resulting from LDT1s related to the Project construction worker trips. Based on Table 4.7-10, it is estimated that 5,914,439 gallons of fuel will be consumed related to construction worker trips during full construction of the Project.

**Table 4.7-10
CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES – LTD1**

Phase Name	Duration (Days)	Worker Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2021						
Demolition	154	7	14.7	15,847	26.03	609
2022						
Demolition	106	7	14.7	10,907	26.79	407
Site Preparation	140	8	14.7	16,464	26.79	615
Grading	14	10	14.7	2,058	26.79	77
2023						
Grading	260	10	14.7	38,220	27.61	1,385
2024						
Grading	146	10	14.7	21,462	28.27	759
Building Construction	116	3,069	14.7	5,233,259	28.27	185,102

Phase Name	Duration (Days)	Worker Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2025						
Building Construction	261	3,069	14.7	11,774,832	29.19	403,447
2026						
Building Construction	261	3,069	14.7	11,774,832	30.05	391,879
2027						
Building Construction	261	3,069	14.7	11,774,832	30.87	381,435
2028						
Building Construction	260	3,069	14.7	11,729,718	31.64	370,702
2029						
Building Construction	261	3,069	14.7	11,774,832	32.37	363,808
2030						
Building Construction	261	3,069	14.7	11,774,832	33.04	356,395
2031						
Building Construction	261	3,069	14.7	11,774,832	33.58	350,685
2032						
Building Construction	262	3,069	14.7	11,819,947	34.15	346,132
Paving	254	8	14.7	29,870	34.15	875
2033						
Building Construction	260	3,069	14.7	11,729,718	34.67	338,307
Paving	260	8	14.7	30,576	34.67	882
2034						
Building Construction	260	3,069	14.7	11,729,718	35.15	333,668
Paving	260	8	14.7	30,576	35.15	870
2035						
Building Construction	261	3,069	14.7	11,774,832	35.59	330,872
Paving	261	8	14.7	30,694	35.59	862
2036						
Building Construction	262	3,069	14.7	11,819,947	35.98	328,493
Paving	262	8	14.7	30,811	35.98	856
2037						
Building Construction	261	3,069	14.7	11,774,832	36.34	324,048
Paving	261	8	14.7	30,694	36.34	845
2038						
Building Construction	261	3,069	14.7	11,774,832	36.66	321,228
Paving	261	8	14.7	30,694	36.66	837
Architectural Coating	64	614	14.7	577,651	36.66	15,759
2039						
Building Construction	261	3,069	14.7	11,774,832	36.66	321,228
Paving	261	8	14.7	30,694	36.66	837
Architectural Coating	64	614	14.7	577,651	36.66	15,759

Phase Name	Duration (Days)	Worker Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2023						
Building Construction	261	3,069	14.7	11,774,832	37.20	316,568
Paving	261	8	14.7	30,694	37.20	825
Architectural Coating	261	614	14.7	2,355,734	37.20	63,334
PROJECT CONSTRUCTION WORKER (LDT1) FUEL CONSUMPTION						5,914,439

Table 4.7-11 provides an estimated annual fuel consumption resulting from LDT2s related to the Project construction worker trips. Based on Table 4.7-11, it is estimated that 5,984,639 gallons of fuel will be consumed related to construction worker trips during full construction of the Project.

It should be noted that construction worker trips would represent a “single-event” gasoline fuel demand and would not require on-going or permanent commitment of fuel resources for this purpose.

**Table 4.7-11
CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES – LTD2**

Phase Name	Duration (Days)	Worker Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2021						
Demolition	154	7	14.7	15,847	24.23	654
2022						
Demolition	106	7	14.7	10,907	25.15	434
Site Preparation	140	8	14.7	16,464	25.15	655
Grading	14	10	14.7	2,058	25.15	82
2023						
Grading	260	10	14.7	38,220	26.11	1,464
2024						
Grading	146	10	14.7	21,462	26.93	797
Building Construction	116	3,069	14.7	5,233,259	26.93	194,335
2025						
Building Construction	261	3,069	14.7	11,774,832	27.98	420,840
2026						
Building Construction	261	3,069	14.7	11,774,832	28.99	406,109
2027						
Building Construction	261	3,069	14.7	11,774,832	29.97	392,914
2028						
Building Construction	260	3,069	14.7	11,729,718	30.89	379,779
2029						
Building Construction	261	3,069	14.7	11,774,832	31.75	370,871

Phase Name	Duration (Days)	Worker Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2030						
Building Construction	261	3,069	14.7	11,774,832	32.56	361,679
2031						
Building Construction	261	3,069	14.7	11,774,832	33.22	354,448
2032						
Building Construction	262	3,069	14.7	11,819,947	33.91	348,533
Paving	254	8	14.7	29,870	33.91	881
2033						
Building Construction	260	3,069	14.7	11,729,718	34.55	339,500
Paving	260	8	14.7	30,576	34.55	885
2034						
Building Construction	260	3,069	14.7	11,729,718	35.13	333,885
Paving	260	8	14.7	30,576	35.13	870
2035						
Building Construction	261	3,069	14.7	11,774,832	35.65	330,248
Paving	261	8	14.7	30,694	35.65	861
2036						
Building Construction	262	3,069	14.7	11,819,947	36.12	327,219
Paving	262	8	14.7	30,811	36.12	853
2037						
Building Construction	261	3,069	14.7	11,774,832	36.53	322,294
Paving	261	8	14.7	30,694	36.53	840
2038						
Building Construction	261	3,069	14.7	11,774,832	36.89	319,149
Paving	261	8	14.7	30,694	36.89	832
Architectural Coating	64	614	14.7	577,651	36.89	15,657
2039						
Building Construction	260	3,069	14.7	11,729,718	37.21	315,270
Paving	260	8	14.7	30,576	37.21	822
Architectural Coating	260	614	14.7	2,346,708	37.21	63,075
2023						
Building Construction	261	3,069	14.7	11,774,832	37.47	314,222
Paving	261	8	14.7	30,694	37.47	819
Architectural Coating	261	614	14.7	2,355,734	37.47	62,865
PROJECT CONSTRUCTION WORKER (LDT2) FUEL CONSUMPTION						5,984,639

Construction Vendor and Hauling Fuel Estimates

With respect to estimated VMT, the construction vendor (vehicles that deliver materials to the site during construction) and hauling trips would generate an estimated 3,199,982,428 VMT along area roadways for the Project over the duration of construction activity. It is assumed that 50% of

all vendor trips are from medium-heavy duty trucks (MHDT), 50% are from heavy-heavy duty trucks (HHDT), and 100% of hauling trips are from HHDT. These assumptions are consistent with the CalEEMod defaults utilized within the AQIA. Vehicle fuel efficiencies for MHDTs and HHDTs were estimated using information generated within EMFAC2017. EMFAC2017 was run for the MHDT and HHDT vehicle classes within the California sub-area for the 2021 through 2040 calendar years. Data from EMFAC2017 is shown in Appendix 4.4 of the Energy Analysis.

Based on Table 4.7-12, it is estimated that 5,228,681 gallons of fuel will be consumed related to construction vendor trips (MHDTs) during full construction of the Project.

**Table 4.7-12
 CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES – MHDT**

Phase Name	Duration (Days)	Vendor Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2021						
Demolition	154	124	6.9	131,762	9.73	13,543
2022						
Demolition	106	124	6.9	90,694	10.04	9,029
Site Preparation	140	67	6.9	64,722	10.04	6,444
Grading	14	200	6.9	19,320	10.04	1,923
2023						
Grading	260	200	6.9	358,800	10.45	34,325
2024						
Grading	146	200	6.9	201,480	10.50	19,193
Building Construction	116	2,036	6.9	1,629,614	10.50	155,235
2025						
Building Construction	261	2,036	6.9	3,666,632	10.68	343,388
2026						
Building Construction	261	2,036	6.9	3,666,632	10.85	337,787
2027						
Building Construction	261	2,036	6.9	3,666,632	11.05	331,839
2028						
Building Construction	260	2,036	6.9	3,652,584	11.23	325,207
2029						
Building Construction	261	2,036	6.9	3,666,632	11.40	321,568
2030						
Building Construction	261	2,036	6.9	3,666,632	11.56	317,053
2031						
Building Construction	261	2,036	6.9	3,666,632	11.67	314,138
2032						
Building Construction	262	2,036	6.9	3,680,681	11.81	311,738
2033						
Building Construction	260	2,036	6.9	3,652,584	11.93	306,141

Phase Name	Duration (Days)	Vendor Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2034						
Building Construction	260	2,036	6.9	3,652,584	12.05	303,154
2035						
Building Construction	261	2,036	6.9	3,666,632	12.16	301,607
2036						
Building Construction	262	2,036	6.9	3,680,681	12.25	300,395
2037						
Building Construction	261	2,036	6.9	3,666,632	12.35	296,931
2038						
Building Construction	261	2,036	6.9	3,666,632	12.44	294,852
2039						
Building Construction	260	2,036	6.9	3,652,584	12.51	291,862
2023						
Building Construction	261	2,036	6.9	3,666,632	12.59	291,329
PROJECT CONSTRUCTION VENDOR (MHDT) FUEL CONSUMPTION						5,228,681

Tables 4.7-13 shows the estimated fuel economy of HHDTs accessing the Project site. Based on Tables 4.7-13, fuel consumption from construction vendor and hauling trips (HHDTs) will total approximately 502,067,851 gallons.

It should be noted that Project construction vendor and hauling trips would represent a “single-event” diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

**Table 4.7-13
 CONSTRUCTION VENDOR/HAULING FUEL CONSUMPTION ESTIMATES – HHDT**

Phase Name	Duration (Days)	Vendor Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Vendor						
2021						
Demolition	154	124	6.9	131,762	6.16	21,400
2022						
Demolition	106	124	6.9	90,694	6.33	14,329
Site Preparation	140	67	6.9	64,722	6.33	10,225
Grading	14	200	6.9	19,320	6.33	3,052
2023						
Grading	260	200	6.9	358,800	6.70	53,566
2024						
Grading	146	200	6.9	201,480	6.77	29,778
Building Construction	116	2,036	6.9	1,629,614	6.77	240,847

Phase Name	Duration (Days)	Vendor Trips / Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2025						
Building Construction	261	2,036	6.9	3,666,632	6.89	532,088
2026						
Building Construction	261	2,036	6.9	3,666,632	7.03	521,640
2027						
Building Construction	261	2,036	6.9	3,666,632	7.18	510,571
2028						
Building Construction	260	2,036	6.9	3,652,584	7.34	497,836
2029						
Building Construction	261	2,036	6.9	3,666,632	7.50	488,972
2030						
Building Construction	261	2,036	6.9	3,666,632	7.66	478,385
2031						
Building Construction	261	2,036	6.9	3,666,632	7.82	468,873
2032						
Building Construction	262	2,036	6.9	3,680,681	7.98	461,301
2033						
Building Construction	260	2,036	6.9	3,652,584	8.13	449,221
2034						
Building Construction	260	2,036	6.9	3,652,584	8.28	441,175
Vendor						
2035						
Building Construction	261	2,036	6.9	3,666,632	8.42	435,473
2036						
Building Construction	262	2,036	6.9	3,680,681	8.55	430,615
2037						
Building Construction	261	2,036	6.9	3,666,632	8.67	423,034
2038						
Building Construction	261	2,036	6.9	3,666,632	8.78	417,797
2039						
Building Construction	260	2,036	6.9	3,652,584	8.87	411,628
2023						
Building Construction	261	2,036	6.9	3,666,632	8.96	409,304
Hauling						
2021						
Demolition	154	591,868	20	1,822,953,4	6.16	296,076,913
2022						
Demolition	106	591,868	20	1,254,760,1	6.33	198,239,829
PROJECT CONSTRUCTION VENDOR/HAULING (HHDT) FUEL CONSUMPTION						502,067,851

Construction Energy Efficiency/Conservation Measures

Starting in 2014, CARB adopted the nation's first regulation aimed at cleaning up off-road construction equipment such as bulldozers, graders, and backhoes. These requirements ensure fleets gradually turnover the oldest and dirtiest equipment to newer, cleaner models and prevent fleets from adding older, dirtier equipment. As such, the equipment used for Project construction would conform to CARB regulations and California emissions standards. It should also be noted that there are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in construction of the Project would therefore not result in inefficient wasteful, or unnecessary consumption of fuel.

Construction contractors would be required to comply with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. Compliance with anti-idling and emissions regulations would result in a more efficient use of construction-related energy and the minimization or elimination of wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Additional construction-source energy efficiencies would occur due to required California regulations and best available control measures (BACM). For example, CCR Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Section 2449(d)(3) requires that "grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling." In this manner, construction equipment operators are required to be informed that engines are to be turned off at or prior to five minutes of idling. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

A full analysis related to the energy needed to form construction materials is not included in this analysis due to a lack of detailed Project-specific information on construction materials. At this time, an analysis of the energy needed to create Project-related construction materials would be extremely speculative and thus has not been prepared.

In general, the construction processes promote conservation and efficient use of energy by reducing raw materials demands, with related reduction in energy demands associated with raw materials extraction, transportation, processing and refinement. Use of materials in bulk reduces energy demands associated with preparation and transport of construction materials as well as the transport and disposal of construction waste and solid waste in general, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations. Note that existing State mandates to recycle construction waste will reduce the volume of waste landfilled in the future.

OPERATIONAL ENERGY DEMANDS

Energy consumption in support of or related to Project operations would include transportation energy demands (energy consumed by passenger car and truck vehicles accessing the Project site) and facilities energy demands (energy consumed by building operations and site maintenance activities).

Transportation Energy Demands

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site.

Light-Duty Autos

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project’s AQIA, the Project would generate an estimated 53,883,015 annual VMT along area roadways for all LDAs with full build-out of the Project. Table 4.7-14 provides an estimated range of annual fuel consumption resulting from Project generated LDAs. Based on Table 4.7-14, it is estimated that 1,209,329 gallons of fuel will be consumed from Project generated LDA trips.

**Table 4.7-14
 PROJECT-GENERATED LDA VEHICLE TRAFFIC ANNUAL FUEL CONSUMPTION**

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
53,883,015	44.56	1,209,329

Light-Duty Trucks

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project’s AQIA, the Project would generate an estimated 3,099,016 annual VMT along area roadways for all Light-Duty Trucks (LDT1)⁶ vehicles with full build-out of the Project. Table 4.7-15 provides an estimated range of annual fuel consumption resulting from Project generated LDT1s. Based on Table 4.7-15, it is estimated that 83,318 gallons of fuel will be consumed from Project generated LDT1 trips.

**Table 4.7-15
 PROJECT-GENERATED LDT1 VEHICLE TRAFFIC ANNUAL FUEL CONSUMPTION**

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
3,099,016	37.20	83,318

Additionally, the Project would generate an estimated 17,468,255 annual VMT along area roadways for all LDT2⁷ vehicles with full build-out of the Project. Table 4.7-16 provides an estimated range of annual fuel consumption resulting from Project generated LDT2s. Based on

⁶ Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

⁷ Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

Table 4.7-16, it is estimated that 466,157 gallons of fuel will be consumed from Project generated LDT2 trips.

**Table 4.7-16
 PROJECT-GENERATED LDT2 VEHICLE TRAFFIC ANNUAL FUEL CONSUMPTION**

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
17,468,255	37.47	466,157

Medium-Duty Trucks

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project’s AQIA, the Project would generate an estimated 9,478,777 annual VMT along area roadways for all Medium-Duty Trucks (MDV) vehicles with full build-out of the Project. Table 4.7-17 provides an estimated range of annual fuel consumption resulting from Project generated MDVs. Based on Table 4.7-17, it is estimated that 306,376 gallons of fuel will be consumed from Project generated MDV trips.

**Table 4.7-17
 PROJECT-GENERATED MDV VEHICLE TRAFFIC ANNUAL FUEL CONSUMPTION**

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
9,478,777	30.94	306,376

Light-Heavy Duty Trucks

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project’s AQIA, the Project would generate an estimated 3,328,365 annual VMT along area roadways for all Light-Heavy-Duty Trucks (LHDT1)⁸ vehicles with full build-out of the Project. Table 4.7-18 provides an estimated range of annual fuel consumption resulting from Project generated LHDT1s. Based on Table 4.7-18, it is estimated that 194,930 gallons of fuel will be consumed from Project generated LHDT1 trips.

**Table 4.7-18
 PROJECT-GENERATED LHDT1 TRAFFIC ANNUAL FUEL CONSUMPTION**

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
3,328,365	17.07	194,930

Additionally, the Project would generate an estimated 1,499,137 annual VMT along area roadways for all LHDT2⁹ vehicles with full build-out of the Project. Table 4.7-19 provides an estimated range of annual fuel consumption resulting from Project generated LHDT2s. Based on Table 4.7-19, it is estimated that 84,716 gallons of fuel will be consumed from Project generated LHDT2 trips.

⁸ Vehicles under the LHDT1 category have a GVWR of 8,501 to 10,000 lbs.
⁹ Vehicles under the LHDT2 category have a GVWR of 10,001 to 14,000 lbs.

**Table 4.7-19
 PROJECT-GENERATED LHDT2 TRAFFIC ANNUAL FUEL CONSUMPTION**

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
1,499,137	17.70	84,716

Medium-Heavy Duty Trucks

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project’s AQIA, the Project would generate an estimated 6,550,809 annual VMT along area roadways for all MHDTs with full build-out of the Project. Table 4.7-20 provides an estimated range of annual fuel consumption resulting from Project generated MHDTs. Based on Table 4.7-20, it is estimated that 520,489 gallons of fuel will be consumed from Project generated MHDT trips.

**Table 4.7-20
 PROJECT-GENERATED MHDT TRAFFIC ANNUAL FUEL CONSUMPTION**

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
6,550,809	12.59	520,489

Heavy-Heavy Duty Trucks

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project’s AQIA, the Project would generate an estimated 30,698,497 annual VMT along area roadways for all HHDTs with full build-out of the Project. Table 4.7-21 provides an estimated range of annual fuel consumption resulting from Project generated HHDTs. Based on Table 4.7-21, it is estimated that 3,426,858 gallons of fuel will be consumed from Project generated HHDT trips.

**Table 4.7-21
 PROJECT-GENERATED HHDT TRAFFIC ANNUAL FUEL CONSUMPTION**

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
30,698,497	8.96	3,426,858

Other Buses

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project’s AQIA, the Project would generate an estimated 82,417 annual VMT along area roadways for all Other Buses (OBUS) with full build-out of the Project. Table 4.7-22 provides an estimated range of annual fuel consumption resulting from Project generated OBUS vehicles. Based on Table 4.7-22, it is estimated that 10,224 gallons of fuel will be consumed from Project generated OBUS trips.

**Table 4.7-22
 PROJECT-GENERATED OBUS TRAFFIC ANNUAL FUEL CONSUMPTION**

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
82,417	8.06	10,224

Urban Buses

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project’s AQIA, the Project would generate an estimated 76,100 annual VMT along area roadways for all Urban Buses (UBUS) with full build-out of the Project. Table 4.7-23 provides an estimated range of annual fuel consumption resulting from Project generated UBUS vehicles. Based on Table 4.7-23, it is estimated that 15,710 gallons of fuel will be consumed from Project generated UBUS trips.

**Table 4.7-23
 PROJECT-GENERATED UBUS TRAFFIC ANNUAL FUEL CONSUMPTION**

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
76,100	4.84	15,710

Motorcycles

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project’s AQIA, the Project would generate an estimated 498,499 annual VMT along area roadways for all Motorcycles (MCY) with full build-out of the Project. Table 4.7-24 provides an estimated range of annual fuel consumption resulting from Project generated MCY vehicles. Based on Table 4.7-24, it is estimated that 13,605 gallons of fuel will be consumed from Project generated MCY trips.

**Table 4.7-24
 PROJECT-GENERATED MCY TRAFFIC ANNUAL FUEL CONSUMPTION**

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
498,499	36.64	13,605

School Buses

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project’s AQIA, the Project would generate an estimated 43,860 annual VMT along area roadways for all School Buses (SBUS) with full build-out of the Project. Table 4.7-25 provides an estimated range of annual fuel consumption resulting from Project generated SBUS vehicles. Based on Table 4.7-25, it is estimated that 4,265 gallons of fuel will be consumed from Project generated SBUS trips.

**Table 4.7-25
 PROJECT-GENERATED SBUS TRAFFIC ANNUAL FUEL CONSUMPTION**

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
43,860	10.28	4,265

Motor Homes

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project’s AQIA, the Project would generate an estimated 31,167 annual VMT along area roadways for all Motor Homes (MH) with full build-out of the Project. Table 4.7-26 provides an estimated range of annual fuel consumption resulting from Project generated MH vehicles.

Based on Table 4.7-26, it is estimated that 4,194 gallons of fuel will be consumed from Project generated MH trips.

**Table 4.7-26
 PROJECT-GENERATED MH TRAFFIC ANNUAL FUEL CONSUMPTION**

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
31,167	7.43	4,194

As summarized on Table 4.7-27 the Project will result in 126,737,915 annual VMT and an estimated annual fuel consumption of 6,340,171 gallons of fuel.

**Table 4.7-27
 TOTAL PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION (ALL VEHICLES)**

Vehicle Type	Annual VMT	Estimated Annual Fuel Consumption (gallons)
LDA	53,883,015	1,209,329
LDT1	3,099,016	83,318
LDT2	17,468,255	466,157
MDV	9,478,777	306,376
LHDT1	3,328,365	194,930
LHDT2	1,499,137	84,716
MHDT	6,550,809	520,489
HHDT	30,698,497	3,426,858
OBUS	82,417	10,224
UBUS	76,100	15,710
MCY	498,499	13,605
SBUS	43,860	4,265
MH	31,167	4,194
TOTAL (ALL VEHICLES)	126,737,915	6,340,171

Facility Energy Demands

Project building operations activities would result in the consumption of natural gas and electricity. Natural gas would be supplied to the Project by SoCalGas; electricity would be supplied to the Project by SCE. As previously stated, the analysis herein assumes compliance with the 2019 Title 24 Standards. As such, the CalEEMod defaults for Title 24 – Electricity and Lighting Energy were reduced by 30% in order to reflect consistency with the 2019 Title 24 standard. Annual natural gas and electricity demands of the Project are summarized in Table 4.7-28 and provided in Appendix 4.3 of the Energy Analysis.

**Table 4.7-28
 PROJECT ANNUAL OPERATIONAL ENERGY DEMAND SUMMARY**

Natural Gas Demand	kBTU/year
High-Cube Transload & Short-Term Warehouse	1,933,710
Warehousing	9,023,970
Research and Development	36,304,200
Shopping Center	336,992
Hotel	3,260,250
Other Asphalt Surfaces	0
TOTAL PROPOSED PROJECT NATURAL GAS DEMAND	50,859,122
Electricity Demand	kWh/year
High-Cube Transload & Short-Term Warehouse	2,569,260
Warehousing	11,989,900
Research and Development	11,211,600
Shopping Center	1,968,530
Hotel	1,092,750
Other Asphalt Surfaces	0
TOTAL PROJECT ELECTRICITY DEMAND	28,832,040

kBTU – kilo-British Thermal Units

Operational Energy Efficiency/Conservation Measures

Energy efficiency/energy conservation attributes of the Project would be complemented by increasingly stringent state and federal regulatory actions addressing vehicle fuel economies and vehicle emissions standards; and enhanced building/utilities energy efficiencies mandated under California building codes (e.g., Title 24, California Green Building Standards Code).

Enhanced Vehicle Fuel Efficiencies

Project annual fuel consumption estimates presented previously in Table 4.7-27 represent likely potential maximums that would occur for the Project. Under subsequent future conditions, average fuel economies of vehicles accessing the Project site can be expected to improve as older, less fuel-efficient vehicles are removed from circulation, and in response to fuel economy and emissions standards imposed on newer vehicles entering the circulation system.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands.

The Property Owner/Developer would comply with the County’s transportation control measures development standards (see Chapter 83.14.030 of the Code of Ordinances).

Summary of Impacts

Construction Energy Demands

The estimated power cost of on-site electricity usage during the construction of the Project is assumed to be approximately \$16,477,008.39. Additionally, based on the assumed power cost, it is estimated that the total electricity usage during construction, after full Project build-out, is calculated to be approximately 172,020,759 kWh.

Construction equipment used by the Project would result in single event consumption of approximately 2,583,570 gallons of diesel fuel. Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies.

CCR Title 13, Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. BACMs inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

Construction worker trips for full construction of the Project would result in the estimated fuel consumption of 21,733,183 gallons of fuel. Additionally, fuel consumption from construction vendor and hauling trips (MHDTs and HHDTs) will total approximately 507,296,532 gallons. Diesel fuel would be supplied by City and regional commercial vendors. Indirectly, construction energy efficiencies and energy conservation would be achieved using bulk purchases, transport and use of construction materials. The 2019 IEPR released by the CEC has shown that fuel efficiencies are getting better within on and off-road vehicle engines due to more stringent government requirements. As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

Operational Energy Demands

Transportation

Annual vehicular trips and related VMT generated by the operation of the Project would result in a fuel demand of 6,340,171 gallons of fuel.

Fuel would be provided by current and future commercial vendors. Trip generation and VMT generated by the Project are consistent with other residential and commercial uses of similar scale and configuration, as reflected respectively in the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Ed., 2017); and CalEEMod. As such, Project operations would not result in excessive and wasteful vehicle trips and VMT, nor excess and wasteful vehicle energy consumption compared to other residential and commercial uses.

It should be noted that the state strategy for the transportation sector for medium and heavy-duty trucks is focused on making trucks more efficient and expediting truck turnover rather than reducing VMT from trucks. This is in contrast to the passenger vehicle component of the transportation sector where both per-capita VMT reductions and an increase in vehicle efficiency are forecasted to be needed to achieve the overall state emissions reductions goals.

Heavy duty trucks involved in goods movements are generally controlled on the technology side and through fleet turnover of older trucks and engines to newer and cleaner trucks and engines. The first battery-electric heavy-duty trucks are being tested this year and SCAQMD is looking to integrate this new technology into large-scale truck operations. The following state strategies reduce GHG emissions from the medium and heavy-duty trucks:

- CARB's Mobile Source Strategy focuses on reducing GHGs through the transition to zero and low emission vehicles and from medium-duty and heavy-duty trucks.
- CARB's Sustainable Freight Action Plan establishes a goal to improve freight efficiency by 25 percent by 2030, deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.
- CARB's Emissions Reduction Plan for Ports and Goods Movement (Goods Movement Plan) in California focuses on reducing heavy-duty truck-related emissions focus on establishment of emissions standards for trucks, fleet turnover, truck retrofits, and restriction on truck idling (CARB 2006). While the focus of Goods Movement Plan is to reduce criteria air pollutant and air toxic emissions, the strategies to reduce these pollutants would also generally have a beneficial effect in reducing GHG emissions.
- CARB's On-Road Truck and Bus Regulation (2010) requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023 nearly all trucks and buses will need to have 2010 model year engines or equivalent.
- CARB's Heavy-Duty (Tractor-Trailer) GHG Regulation requires SmartWay tractor trailers that include idle-reduction technologies, aerodynamic technologies, and low-rolling resistant tires that would reduce fuel consumption and associated GHG emissions.

The proposed Project would implement project design features that would facilitate the accessibility, parking, and loading of trucks on site.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. The Project would implement sidewalks, facilitating and encouraging pedestrian access. Facilitating pedestrian and bicycle access would reduce VMT and associated energy consumption. In compliance with the California Green Building Standards Code and City requirements, the Project would promote the use of bicycles as an alternative mean of transportation by providing short-term and/or long-term bicycle parking accommodations. As supported by the preceding discussions, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

Facility Energy Demands

Project facility operational energy demands are estimated at: 50,859,122 kBTU/year of natural gas; and 28,832,040 kWh/year of electricity. Natural gas would be supplied to the Project by SoCalGas if requested; electricity would be supplied by SCE. The Project proposes conventional residential and commercial uses reflecting contemporary energy efficient/energy conserving designs and operational programs. The Project does not propose uses that are inherently energy intensive and the energy demands in total would be comparable to other residential and commercial uses of similar scale and configuration.

Lastly, the Project will comply with the applicable Title 24 standards. Compliance itself with applicable Title 24 standards will ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary.

Conclusion of Impacts

Energy Impact 1:

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

As supported by the preceding analyses, Project construction and operations would not result in the inefficient, wasteful or unnecessary consumption of energy. The Project would therefore not cause or result in the need for additional energy producing or transmission facilities. The Project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservations goals within the State of California.

Energy Impact 2:

Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The Project's consistency with the applicable state and local plans is discussed below.

Consistency with ISTE A: Transportation and access to the Project site is provided by established local and regional roadway systems. The Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to the ISTE A because SCAG is not planning for intermodal facilities on or through the Project site.

Consistency with TEA-21: The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through collocation of similar uses. The Project supports the strong planning processes emphasized under TEA-21. The Project is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of TEA-21.

Consistency with IEPR: Electricity may be provided to the Project by SCE. SCE's *Clean Power and Electrification Pathway (CPEP)* white paper builds on existing state programs and policies. As such, the Project is consistent with, and would not otherwise interfere with, nor obstruct implementation of the goals presented in the 2019 IEPR.

Consistency with State of California Energy Plan: The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access and takes advantage of existing road infrastructure systems. The Project therefore supports urban design and planning processes identified under the State of California Energy Plan, is consistent with, and would not otherwise interfere with, nor obstruct implementation of the State of California Energy Plan.

Consistency with California Code Title 24, Part 6, Energy Efficiency Standards: The 2019 version of Title 24 was adopted by the California Energy Commission (CEC) and became effective on January 1, 2020. It should be noted that the analysis herein assumes compliance with the 2019

Title 24 Standards. It should be noted that the CEC anticipates that nonresidential buildings will use approximately 30% less energy compared to the prior code. As such, the CalEEMod defaults for Title 24 – Electricity and Lighting Energy were reduced by 30% in order to reflect consistency with the 2019 Title 24 standard.

Consistency with AB 1493: AB 1493 is not applicable to the Project as it is a statewide measure establishing vehicle emissions standards. No feature of the Project would interfere with implementation of the requirements under AB 1493.

Consistency with RPS: California's Renewable Portfolio Standard is not applicable to the Project as it is a statewide measure that establishes a renewable energy mix. No feature of the Project would interfere with implementation of the requirements under RPS.

Consistency with SB 350: The proposed Project would use energy from SCE, which have committed to diversify their portfolio of energy sources by increasing energy from wind and solar sources. No feature of the Project would interfere with implementation of SB 350. Additionally, the Project would be designed and constructed to implement the energy efficiency measures for new industrial developments and would include several measures designed to reduce energy consumption.

As shown above, the Project would not conflict with any of the state or local plans. As such, a less than significant impact is expected.

Energy Impact 3:

Would the Project achieve the goal of energy conservation by:

- *Decreasing overall per capita energy consumption.*
- *Decreasing reliance on fossil fuels such as coal, natural gas and oil.*
- *Increasing reliance on renewable energy sources.*

As previously stated, the proposed Project is subject to California Building Code requirements. New buildings must achieve compliance with 2019 Building and Energy Efficiency Standards and the 2019 California Green Building Standards requirements. The CEC anticipates that nonresidential buildings will use approximately 30% less energy due to lighting upgrades compared to the prior code. It should be noted that though the Project will comply with the applicable Title 24 standards which would ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary.

Given the above, the Project would comply with regulations imposed by the federal and state agencies that regulate energy use and consumption through various means and programs. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of energy usage include:

- Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)
- The Transportation Equity Act for the 21st Century (TEA-21)
- Integrated Energy Policy Report (IEPR)
- State of California Energy Plan
- California Code Title 24, Part 6, Energy Efficiency Standards
- AB 1493 Pavley Regulations and Fuel Efficiency Standards
- California's Renewable Portfolio Standard (RPS)
- Clean Energy and Pollution Reduction Act of 2015 (SB 350)

Consistency with the above regulations would ensure that the proposed project would not result in significant and unavoidable energy impacts.

*Mitigation Measures: No mitigation is required, however, mitigation measure **AQ-1** through **AQ-44** and **GHG-1** through **GHG-2** would minimize energy demand, thereby further minimizing energy impacts.*

Level of Significance: Less Than Significant Impact

4.7.6 Cumulative Impacts

The proposed AGSP would contribute to the cumulative use of energy within San Bernardino Valley region. The region is anticipating moderate population growth and associated housing, commercial, and industrial developments that would cumulatively increase the demand for energy, including that which would be demanded by the proposed project. While the AGSP aims at reducing overall energy consumption from the proposed development, because it would result in greater intensity of development than that which exists at present within the area, it would increase the energy demands over the approximately 20-year horizon in which AGSP would be implemented. Through the extensive mitigation provided under the issues of Air Quality and Greenhouse Gas requiring the construction of solar or other clean energy technology, provision of electric vehicle (EV) charging stations, utilization of electric equipment, future development to meet Green Building Code Standards, utilization of high efficiency lighting, etc. These measures would minimize the AGSP's energy footprint over the 20-year horizon and beyond such that the proposed project's cumulative energy demand would be less than significant.

4.7.7 Unavoidable Significant Adverse Impacts

With adherence to and implementation of the above mitigation measures and those referenced in the Section 4.4 Air Quality, local General Plan policies, State and Federal regulations pertaining to energy conservation, SCE programs, and other existing regulations, the proposed Project's potential energy cumulative and Program-specific impacts can be controlled and will be reduced below a level of significance.

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4.8 GEOLOGY AND SOILS

4.8.1 Introduction

This subchapter evaluates the environmental impacts to geology and soils from implementation of the proposed project. These issues will be discussed below as set in the following framework:

- 4.8.1 Introduction
- 4.8.2 Regulatory Setting
- 4.8.3 Existing Conditions
- 4.8.4 Thresholds of Significance
- 4.8.5 Methodology
- 4.8.6 Environmental Impacts
- 4.8.7 Mitigation Measures
- 4.8.8 Cumulative Impacts
- 4.8.9 Significant and Unavoidable Impacts

The General Plans and General Plan EIRs for the two cities have been used to characterize the existing Geology and Soils environment for the AGSP project area. Since no site-specific projects are considered in this environmental document, the Geology and Soils description is intended to summarize the general environmental conditions. Site-specific geology and soils reports will be required by each City as individual projects are submitted for review and entitlement.

No comments related to geology and soils were received in response to the Notice of Preparation, or at the scoping meeting held for the project.

4.8.2 Regulatory Setting

Federal, State and local laws, regulations, plans, or guidelines that are applicable to the proposed project are summarized below.

Federal

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act was enacted in 1997 to “reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program.” To accomplish this, the act established the National Earthquake Hazard Reduction Program (“NEHRP”), which refined the description of agency responsibilities, program goals, and objectives. NEHRP’s mission includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improvement of building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improvement of mitigation capacity; and accelerated application of research results. NEHRP designates the Federal Emergency Management Agency as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities. Programs under NEHRP help inform and guide planning and building code requirements such as emergency evacuation responsibilities and seismic code standards.

State

California Alquist-Priolo Earthquake Fault Zoning Act

The California Alquist-Priolo Earthquake Fault Zoning Act was signed into state law in 1972, and amended, with its primary purpose being to mitigate the hazard of fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault. This act (or state law) was a direct result of the 1971 San Fernando Earthquake, which was associated with extensive surface fault ruptures that damaged numerous homes, commercial buildings, and other structures. The act requires the State Geologist (California Geologic Survey, CGS) 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 Section 3603(a) of the California Code of Regulations, 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 Section 3603(a) of the California Code of Regulations. 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 Section 3603(d) of the California Code of Regulations.

Seismic Hazard Mapping Act

The Seismic Hazard Mapping Act was adopted by the state in 1990 for the purpose of protecting the public from the effects of non-surface fault rupture earthquake hazards, including strong groundshaking, liquefaction, seismically induced landslides, or other ground failure caused by earthquakes. The goal of the act is to minimize loss of life and property by identifying and mitigating seismic hazards. The CGS prepares and provides local governments with seismic hazard zones maps that identify areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures.

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 also known as Title 24, Part 2, of the California Code of Regulations. These codes provide 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 onsite, and the strength of ground shaking with a specified probability at a site. The 2019 CBC took effect on January 1, 2020.

Soils Investigation Requirements

Requirements for soils investigations for subdivisions requiring tentative and final maps, and for other specified types of structures, are in California Health and Safety Code Sections 17953 to 17955 and in Section 1802 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, compressibility, liquefaction, differential settlement, and expansiveness.

Storm Water Pollution Prevention Plans

Pursuant to the Clean Water Act, in 2012, the State Water Resources Control Board issued a statewide general NPDES Permit for stormwater discharges from construction sites (National Pollutant Discharge Elimination System No. CAS000002). Under this Statewide General Construction Activity permit, discharges of stormwater from construction sites with a disturbed area of one or more acres are required to either obtain individual NPDES permits for stormwater discharges or be covered by the General Permit. Coverage by the General Permit is accomplished by completing and filing a Notice of Intent with the State Water Resources Control Board and developing and implementing a Storm Water Pollution Prevention Plan (“SWPPP”). Each applicant under the General Construction Activity Permit must ensure that a SWPPP is prepared prior to grading and is implemented during construction. The SWPPP must list best management practices (BMPs) implemented on the construction site to protect stormwater runoff and must contain a visual monitoring program; a chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs; and a monitoring plan if the site discharges directly to a water body listed on the state’s 303(d) list of impaired waters.

Local

City of Highland General Plan

To assist in understanding the City of Highland geology, active faults and liquefaction areas, maps from the General Plan Public Health and Safety are provided in this document. Figure 4.8-1 (General Plan Figure 6.1) shows the general geology underlying the City of Highland; Figure 4.8-2 (General Plan Figure 6.2) shows the location of active faults (Alquist-Priolo Zones) in the City; and Figure 4.8-3 (General Plan Figure 6.3) shows the location of areas that may be susceptible to liquefaction in the City. The following Highland General Plan goals and policies addressing geology and soils constraints are applicable to the project.

Public Health, Safety, and Environmental Justice Element: Goal 3

Minimize risks, such as loss of life, injury, property damage, and natural resource destruction from natural and human-caused hazards.

Public Health, Safety, and Environmental Justice Element: Policy 3.5

Enforce development standards to reduce geologic risk.

Action 3.5a: Soil Reports in Liquefaction Zones. When applicable, continue to require soil reports and implement recommendations for projects in identified areas where liquefaction or other soil issues exist.

Action 3.5b: Soil Reports for Projects on Fill. When applicable, continue to require a preliminary soil report and a report of satisfactory placement of fill prepared by a licensed geotechnical engineer or civil engineer for all buildings and structures supported on fill.

Action 3.5c: Foundation Reports. When applicable, continue to require a preliminary report for all buildings and structures supported on natural ground unless the foundations have been designed in accordance with current standards.

Action 3.5d: Renovations. Continue to require seismic retrofits for major renovations in accordance with Historic and Building Code provisions.

Public Health, Safety, and Environmental Justice Element: Policy 3.6

Prioritize seismic retrofits of buildings that pose the greatest risk.

Action 3.6a: Unreinforced Masonry Structures. Consistent with State law and when applicable, require the retrofitting of unreinforced masonry structures to minimize damage in the event of seismic or geologic hazards. Incentivize seismic retrofits through permit fee waiver or other city incentive.

Action 3.6b: Retrofitting of Essential Facilities. When feasible, seismic retrofit essential facilities to minimize damage in the event of seismic or geologic hazards.

City of San Bernardino General Plan

To assist in understanding the City of San Bernardino geology, active faults and liquefaction areas, maps from the General Plan Public Health and Safety are provided in this document. Figure 4.8-4 (General Plan Figure S-3) shows the location of Alquist-Priolo Zones in the City of San Bernardino and Figure 4.8-5 (General Plan Figure S-4) shows the location of active fault traces within the City; Figure 4.8-6 (General Plan Figure S-5) shows the location of areas that may be susceptible to liquefaction in the City; and Figure 4.8-7 (General Plan Figure S-6) shows the areas of the City that may be subject to regional subsidence. The following San Bernardino General Plan goals and policies addressing geology and soils constraints are applicable to the project.

Safety: Goal 10.7

Protect life, essential lifelines, and property from damage resulting from seismic activity.

Safety Policy 10.7.1

Minimize the risk to life and property through the identification of potentially hazardous areas, establishment of proper construction design criteria, and provision of public information.

Safety Policy 10.7.2

Require geologic and geotechnical investigation for new development in areas adjacent to known fault locations and approximate fault locations (Figure S-3) as part of the environmental and/or development review process and enforce structural setbacks from faults identified through those investigations. (LU-1)

Safety Policy 10.7.3

Enforce the requirements of the California Seismic Hazards Mapping and Alquist-Priolo Earthquake Fault Zoning Acts when siting, evaluating, and constructing new projects within the City. (LU-1)

Safety Policy 10.7.4

Determine the liquefaction potential at a site prior to development, and require that specific measures be taken as necessary, to prevent or reduce damage in an earthquake.

Safety Policy 10.7.5

Evaluate and reduce the potential impact of liquefaction on new and existing lifelines.

Safety: Goal 10.9

Minimize exposure to and risk from geologic activities.

Safety Policy 10.9.1

Minimize risk to life and property by properly identifying hazardous areas, establishing proper construction design criteria, and distribution of public information.

Safety Policy 10.9.2

Require geologic and geotechnical investigations in areas of potential geologic hazards as part of environmental and/or development review process for all new structures. (LU-1)

4.8.3 Existing Conditions: Geology and Soils

4.8.3.1 Geology

The San Bernardino Valley extends from San Antonio and Chino Creeks on the west to the margins of the San Bernardino Mountains on the east where the Santa Ana River and Mill Creek discharge to the valley floor. From west to east the geologic environmental setting is relatively consistent with mountains forming the northern and eastern boundary (San Gabriel and San

Bernardino Mountains with steep slopes); transitioning to alluvial fans where streams exit the mountains (with shallower slopes and minimal bedrock exposure); and finally the Valley floor with the Santa Ana River serving as the lowest elevation point to which all water flows through and then out of the Upper Santa Ana River watershed at Prado Dam (with minimal slope and minimal bedrock exposure). Cajon and Lytle Creeks flow out of the mountains and divide the San Gabriel from the San Bernardino Mountains. The east San Bernardino Valley extends from Lytle/Cajon Creek channels to the discharge points of the Santa Ana River and Mill Creek in the City of Highland.

The AGSP project area occupies a site that overlies alluvial fill, but more in the flat valley area just north of the Santa Ana River floodplain, than on the slightly steeper alluvial fans just to the north. Figure 4.8-1 shows the underlying alluvial area that provides the geologic setting for the project area and the area in general. There are no surface bedrock outcrops within the AGSP project area and only one creek channel, the City Creek Bypass, traverses the project area, in this case from east to west adjacent to 3rd Street, which generally forms the southern boundary of the AGSP project area. As a result of the shallow slope of the AGSP project area and lack of exposed bedrock, the project area is not subject to either landslide or rock fall hazards.

Although the AGSP project area has relatively little geologic and soil variability, the east San Bernardino Valley contains a variety of geologic/geotechnical hazards (constraints). The primary constraint is the presence of numerous active faults capable of generating substantial earthquakes, including fault rupture of the ground surface and substantial groundshaking. Figures 4.8-2, 4.8-4 and 4.8-5 show the location of active faults in the east San Bernardino Valley and the associated Alquist-Priolo Study Zones. Within these areas the potential exists to experience ground surface rupture during an earthquake with an epicenter in the Study Zone. Of note the AGSP project area north of the San Bernardino International Airport is not located within any Alquist-Priolo Study Zone.

However, groundshaking from regional seismic events (earthquakes) can affect the proposed AGSP project area. According to the City of Highland General Plan (page 6-3), the San Andreas Fault is capable of generating an earthquake with a magnitude of up to 8.3 on the Richter scale and the nearby San Jacinto Fault Zone has a comparable maximum credible earthquake of 8.5. The AGSP project area is located in a Zone 4 hazard area assigned by the California Building Code (CBC). This requires future light industrial and business park structures to be constructed in accordance with the current strictest seismic building code in the State. Further, the future site-specific developments within both jurisdictions will be required to prepare and comply with site-specific geotechnical studies that will identify the degree of seismic hazard at a specific site and the required foundation and building design requirements to mitigate groundshaking hazards to the extent feasible (protective of human life).

Figures 4.8-3 and 4.8-6 show the areas of the two cities that have a high liquefaction susceptibility. Liquefaction is a seismically induced form of ground failure, which is associated with a high groundwater table (typically groundwater table within 50 feet of the ground surface) and unconsolidated granular materials with silt and clay content of less than 30 percent. The AGSP project area potentially contains these conditions, so a high liquefaction hazard is identified for the western half of the project area, essentially west of Victoria Avenue. The exposure to this hazard has lessened within the project area in recent years due to lowering of the groundwater table. However, this general hazard must be addressed to minimize its potential adverse impact from liquefaction.

Thus, the future site-specific developments within both jurisdictions will be required to prepare and comply with site-specific geotechnical studies that will identify liquefaction hazards at a given development site and the required foundation and building design requirements to mitigate liquefaction hazards.

Figure 4.8-7 shows the area in the Valley that may be subject to potential ground subsidence. Ground subsidence can occur when the ground beneath a building foundation experiences consolidation, typically of a few inches. Broad scale subsidence on the order of several feet can occur within an area where the groundwater table has been lowered and the soils above consolidate or where soil contains substantial organic matter that oxidizes and the soils consolidate as a result of this loss of organic matter. The subsidence area identified in Figure 4.8-7 is caused by lowering the groundwater table and related consolidation of the sediment. Potential for actual subsidence at future sites can be assessed by geologists and geotechnical engineers. Thus, the future site-specific developments within both jurisdictions will be required to prepare and comply with site-specific geotechnical studies that will include an evaluation of subsidence hazards at the site and the required foundation and building design requirements to mitigate subsidence hazards.

4.8.3.2 Soils

Similar to geology, the primary concerns related to soils within a project area are any constraints that they may have for a particular use (except for agriculture in this case). Table 4.8-1 lists the soil series (soils with certain common characteristics) that are found within the AGSP project area. Figure 4.8-8 shows the locations of these soils.

**Table 4.8-1
 SOILS WITHIN THE SPECIFIC PLAN AREA**

Grangeville fine sandy loam	Saline-alkali
Hanford coarse sandy loam	2 to 9 percent slopes
Hanford sandy loam	0 to 2 percent slopes
Psammments Fluvents and frequently flooded soils	
Soboba gravelly loamy sand	0 to 9 percent slopes
Soboba stony loamy sand	2 to 9 percent slopes
Tujunga loamy sand	0 to 5 percent slopes
Tujunga gravelly loamy sand	0 to 9 percent slopes

These data were obtained from the Web Soil Survey National Cooperative Soil Survey. All six of these soils have evolved on alluvial valley floors, fans and terraces, which is as expected for the project area. The TvC soil series (Tujunga gravelly loamy sand, 0 to 9 percent slopes) comprises about 56% of the project area. Descriptions of each soil series are provided in Appendix 5 in Volume 2 of this DPEIR for more detailed information. At a general level, none of these soils pose major constraints to future development. However, the future site-specific developments within both jurisdictions will be required to prepare and comply with site-specific geotechnical studies that will identify any onsite soil constraints/hazards at the site and the required foundation and building design requirements to mitigate possible site-specific soil hazards.

Due to certain soil characteristics, including shallow slopes and highly pervious soils, soil erosion has not been an important factor within the AGSP project area. Extensive field investigations within the AGSP project area did not identify any existing sites within the project area that exhibit substantial erosion. As previously indicated, the project area contains only one stream channel,

the City Creek Bypass. Within the project area most surface runoff currently flows along the existing streets and street shoulders. The north-south streets within the project area deliver stormwater runoff to the City Creek Bypass channel, which in turn transports these surface flows west to the bypass channel's confluence with Warm Creek/Twin Creek, just east of Waterman Avenue.

4.8.4 Thresholds of Significance

Geology and soil impacts are evaluated using the following questions posed in the State CEQA Guidelines Initial Study Environmental Checklist Form. These are:

- GEO-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?
- GEO-2 Result in substantial soil erosion or the loss of topsoil?
- GEO-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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?
- GEO-4 Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?
- GEO-5 Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?
- GEO-6 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

By thoroughly evaluating these issues using substantial evidence, the potential impacts of each Geology/Soil issue listed above can be fully addressed.

4.8.5 Methodology

The following analysis of impacts is based upon a review of the area geology and soil resources found within the AGSP project area. Since no site-specific development proposal or requests for entitlement accompany the AGSP, no onsite geotechnical investigation has been conducted within the project area. This environmental document relies on the information contained in the General Plans and General Plan EIRs in both cities.

4.8.6 Environmental Impacts

- GEO-1 Would the project 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?

The proposed project is located within an area of California known to contain a number of active and potentially active faults. However, review of Figures 4.8-2, 4.8-4 and 4.8-5 shows that no active faults are known to occur within the project area and the site is not located within an Alquist-Priolo Earthquake Fault Zone, which are zones that have been established by the State of California to restrict the construction of new habitable structures across identifiable traces of known active faults. Therefore, the evaluation of this issue concludes that the likelihood of surface fault rupture within the project area is minimal to non-existent. Therefore, **no impacts** are anticipated related to fault rupture, and no mitigation is required.

ii) Strong seismic ground shaking?

According to the information in the General Plans, the project area is located within an area of California known to contain a number of active and potentially active faults. Due to the proximity of the area to nearby active faults (San Andreas and San Jacinto Faults), strong ground shaking is possible within the project area during the life of the project. The possibility of ground shaking at the site may be considered similar to the southern California region as a whole. As stated previously, the project area is not located within an active fault zone or within an Alquist-Priolo Earthquake Fault Zone. Due to this ground shaking exposure, the future site-specific projects within the AGSP project area will be required to conform to the latest CBC regulations adopted at the time of project approval, which includes seismic design criteria and standards.

However, conformance to the criteria for seismic design does not constitute any kind of guarantee or assurance that adverse structural damage will not occur in the event of a substantial ground shaking event that may affect the site. Potential damage to any structure(s) would likely be greatest from the vibrations and impelling force caused by the inertia of a structure's mass. This potential would be no greater for future site-specific projects than that for other existing structures and improvements in the immediate vicinity. The potential for significant impacts to occur due to strong seismic shaking can be reduced to a less than significant level with implementation of standard seismic design requirements appropriate for the expected level of seismic shaking.

In addition to compliance with standard CBC design requirements, which are mandatory, implementation of MM **GEO-1** ensures that future geotechnical recommendations will be enforced as requirements for such projects.

As described above, MM **GEO-1** can provide information that can reduce the potential for impacts relating to seismic ground shaking by ensuring that all technical structural mitigation recommendations of the project-specific geotechnical investigation are implemented. Therefore, impacts under this impact threshold are considered **less than significant with mitigation**.

iii) Seismic-related ground failure, including liquefaction?

Liquefaction occurs as a result of a substantial loss of shear strength or shearing resistance in loose, saturated, cohesionless earth materials subjected to earthquake induced ground shaking. Potential impacts from liquefaction include loss of bearing capacity, liquefaction related settlement, lateral movements, and surface manifestation such as sand boils. According to Figures 4.8-3 and 4.8-6 the western portion of the AGSP project area, essentially west of Victoria Avenue, is ostensibly exposed to liquefaction hazards. Although this finding may be ameliorated

by recent historical lowering of the groundwater table in this general area by groundwater extractions in the Bunker Hill Basin, the potential does exist for liquefaction to function as a seismic hazard in the area. As described above, MM **GEO-1** can reduce the potential for impacts relating to seismic caused liquefaction by ensuring that all technical liquefaction mitigation recommendations of future project-specific geotechnical investigation are implemented. Therefore, impacts under this impact threshold are considered **less than significant with mitigation**.

iv) Landslides/Subsidence?

According to Figures 4.8-3 and 4.8-8 the AGSP project area is not located within any identified area that contains potential for landslides. The project area is located in Area II, areas of low relief, with little to no potential for adverse impacts due to landslides. No landslides are known to exist, or have been mapped, in the vicinity of the project area. Thus, the project area will not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of project implementation, and potentially result in on- or off-site landslide. Thus, the project area will not be exposed to any landslide hazards and no mitigation is required.

Subsidence hazards in the project area are identified on Figure 4.8-7 based on historic areas where subsidence has occurred. Subsidence is not seismic-related, but within the project area and areas to the south has been associated with groundwater extraction in the lower Bunker Hill groundwater basin, upstream of the San Jacinto Fault Zone (refer to Figure 4.8-5). Subsidence hazards appear negligible east of Victoria Avenue in the project area. But west of Victoria a potential for substantial adverse subsidence impacts has been identified, and to minimize this potential, the subsidence topic must be addressed in the geotechnical report required by MM **GEO-1**. With implementation of this measure, potential subsidence impact will result in a less than significant impact.

GEO-2 Would the project result in substantial soil erosion or the loss of topsoil?

During construction, site disturbance will expose soil to both wind and water erosion. A potential for significant adverse erosion impact both during construction and after development can result from implementing the AGSP in the future. Implementation of the project may also result in potential impacts that could result in substantial soil erosion or the loss of topsoil; change deposition, siltation, or erosion that may modify a stream channel; result in an increase in water erosion either on or off site; or be impacted by or result in an increase in wind erosion of soils and fugitive dust generation, either on or off site.

Within the current AGSP environmental setting, there are three programs being implemented to control the effects of erosion. First, during construction on sites greater than one acre in size, the developer must implement a Storm Water Pollution Prevention Plan (SWPPP). The Construction General Permit NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ, NPDES No. CAS000002, Construction General Permit) guides the preparation of the SWPPP. This document identifies the Best Management Practices (BMPs) that will be implemented during construction to control runoff from the construction site with the goal of minimizing erosion and sedimentation both onsite and downstream. The SWPPP must be filed through a Notice of Intent with the State Water Resources Control Board. The actual SWPPP document is required to be made available to the local Regional Board and the City in which the project is being implemented, and a copy of the SWPPP must be retained on the project site for verification that the BMPs are being implemented. Both the Regional Board and City have the responsibility to inspect the construction site and verify the BMPs are being implemented and that they are effective in controlling erosion, sedimentation

and storm water runoff with minimal degradation of water quality in stormwater discharging from the site. At the end of construction, the developer/contractor must close out the SWPPP, which then transitions to the Water Quality Management Plan (WQMP) for long term management of water quality of stormwater discharges from the developed site.

The second program implemented to control water quality of stormwater runoff is implemented when development is completed. A site-specific WQMP is prepared by the property developer and it identifies the long-term BMPs that will be installed and maintained onsite to control degradation of water quality in stormwater runoff from the project site over the long-term. This program is called MS4 (Municipal Separate Stormwater Sewer System) and the Regional Board has issued an MS4 permit to San Bernardino County (Santa Ana RWQCB Order No. R8-2010-0036). This permit is actually implemented by either the County or the City with jurisdiction over the project by reviewing and approving the WQMP submitted for the project site. As in the case of the SWPPP, implementation is monitored by the local agency with jurisdiction conducting field inspections to verify that the BMPs have been installed, are being maintained, and are functioning properly.

The final program being implemented to manage stormwater runoff is broadly termed Low Impact Development (LID). LID programs are intended to minimize discharges from each property being developed in order to achieve both onsite treatment of stormwater and reduction of the volume of discharge after development. The LID goal is to reduce onsite discharges to the volume of surface runoff previous to development and minimize the need to install larger flood control facilities downstream. Facilities designed to retain runoff onsite are also typically designed to achieve water quality objectives, such as bioretention basins, dry wells, or French drains.

Given these existing programs to control both the volume and quality of stormwater runoff, there is limited additional mitigation required to control soil erosion and loss of topsoil. Similar to the requirements for a geotechnical report to be prepared to ensure sufficient data and management programs are in place to minimize geotechnical hazards, the following mitigation measure, **GEO-2**, will be implemented for future site-specific projects to ensure water quality is not substantially degraded during future construction or occupancy of such projects.

Therefore, based on the type and slope of the existing soils within the AGSP and the implementation of MMs **GEO-1 and GEO-2**, the impacts of implementing the AGSP will be **less than significant with mitigation**.

GEO-3 Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?

Please refer to the discussion of these topics under issue GEO-1 above. The soils that have been identified for the AGSP project area have very few development constraints/hazards. The following issues have been addressed under section a): landslides, subsidence and liquefaction. Although the potential for lateral spreading and collapse in these soils is low, the implementation of MM **GEO-1** will ensure that any site-specific soil constraints are managed through geotechnical engineering solutions incorporated into the site/project geotechnical report. No additional mitigation is required.

GEO-4 Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

A review of the soil characteristics for the six soil series identified in Appendix 5 indicates that none of these soils is considered expansive as identified in Table 18-1-B of the 1994 Uniform Building Code. Therefore, no adverse expansive soil impacts will result from implementing the proposed project within the AGSP project area.

GEO-5 Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The whole of the AGSP project area is presently sewered and as a result none of the future development implemented under the AGSP is forecast to require or utilize septic tanks or alternative wastewater disposal systems. Therefore, no adverse impacts from use of alternative wastewater disposal systems will result from implementing the proposed project.

GEO-6 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The evaluation of the existing environmental setting for geology, indicates that there are no known unique geological resources located within the AGSP project area. Therefore, no adverse impact to unique geological resources can occur from implementing the AGSP. Further, the AGSP project area is located on alluvial fan deposits of varying ages. Such deposits can contain paleontological resources, but they are not common. As far as is known, only minimal paleontological resources have been encountered during the past 70-years of development within the AGSP. Even with a low potential for encountering subsurface paleontological resources, it is necessary to incorporate mitigation to ensure that accidental exposure of such resources is managed in a manner to protect the valuable information gained from such exposure during construction. MM **GEO-3** will be implemented in conjunction with all future ground disturbing activities to protect such resources.

4.8.7 Mitigation Measures

The following mitigation measures shall be implemented to eliminate or mitigate geotechnical and erosion impacts identified in the preceding impact analysis.

GEO-1 *All future site-specific projects authorized within the AGSP project area shall prepare and submit comprehensive geotechnical investigation reports to the City with jurisdiction. All of the recommended seismic design and construction measures identified within the geotechnical investigation prepared for a future project to mitigate the following potential geotechnical impacts shall be implemented by the Applicant. Implementation of these specific measures must address all of the identified ground shaking, liquefaction, lateral spreading, collapse, or subsidence hazards identified at a project site.*

GEO-2 *Prior to the commencement of construction of any future project within the AGSP project area that will disturb more than 10,000 square feet, the cities or County shall require preparation, approval, and implementation of a site- or project-specific Stormwater Pollution Prevention Plan and Draft Water Quality Management Plan. The construction contractor(s) shall select best management practices (BMPs) applicable to each site-specific development. BMPs shall include activities on each site to achieve a reduction in pollutants from stormwater discharge to the maximum extent practicable during the construction of each future facility within the AGSP, and to control urban runoff after each future facility within the AGSP is constructed and in operation. Examples*

of BMP(s) that would achieve a reduction in pollutants include, but are not limited to:

- *The use of silt fences or coir rolls;*
- *The use of stormwater de-silting or retention basins;*
- *The use of water bars to reduce the velocity of stormwater runoff;*
- *The use of wheel washers on construction equipment leaving the site;*
- *The washing of silt from public roads at the access point to the site to prevent the tracking of silt and other pollutants from the site onto public roads;*
- *The storage of excavated material shall be kept to the minimum necessary to efficiently perform the construction activities required. Excavated or stockpiled material shall not be stored in water courses or other areas subject to the flow of surface water; and*
- *Where feasible, stockpiled material shall be covered with waterproof material during rain events to control erosion of soil from the stockpiles.*

GEO-3 *At any location where a subsurface paleontological resource is accidentally exposed, the following shall be required to minimize impacts to any accidentally exposed resource materials:*

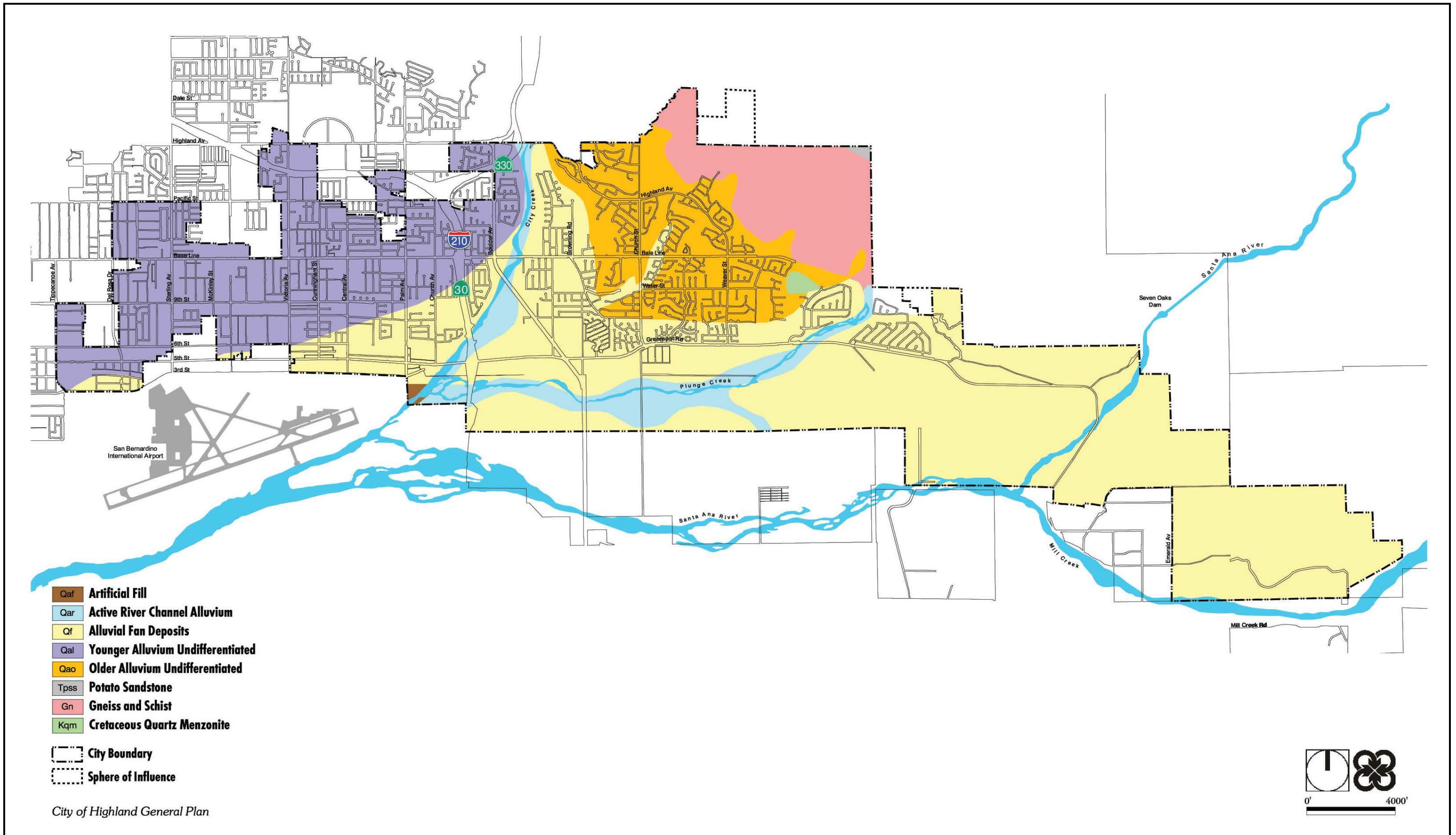
- *Should any paleontological resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection shall be performed immediately by a qualified paleontologist. Responsibility for making this determination shall be with the Implementing Agency's onsite inspector. The paleontological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.*

4.8.8 Cumulative Impacts

Development of the AGSP project area will be affected by limited geotechnical constraints on the properties within the area. None of the future on-site or off-site project-related activities are forecast to cause changes in geology or soils or the constraints/hazards affecting the project area that cannot be fully mitigated. Geology and soil resources are inherently site specific and the only cumulative exposure would be to a significant geological or soil constraint (onsite fault, significant ground shaking that could not be mitigated, or steep slopes creating a landslide exposure). Therefore, the project has no potential to make a cumulatively considerable contribution to any significant geology or soils impact. Project soil and geology impacts are less than significant, or less than cumulatively considerable.

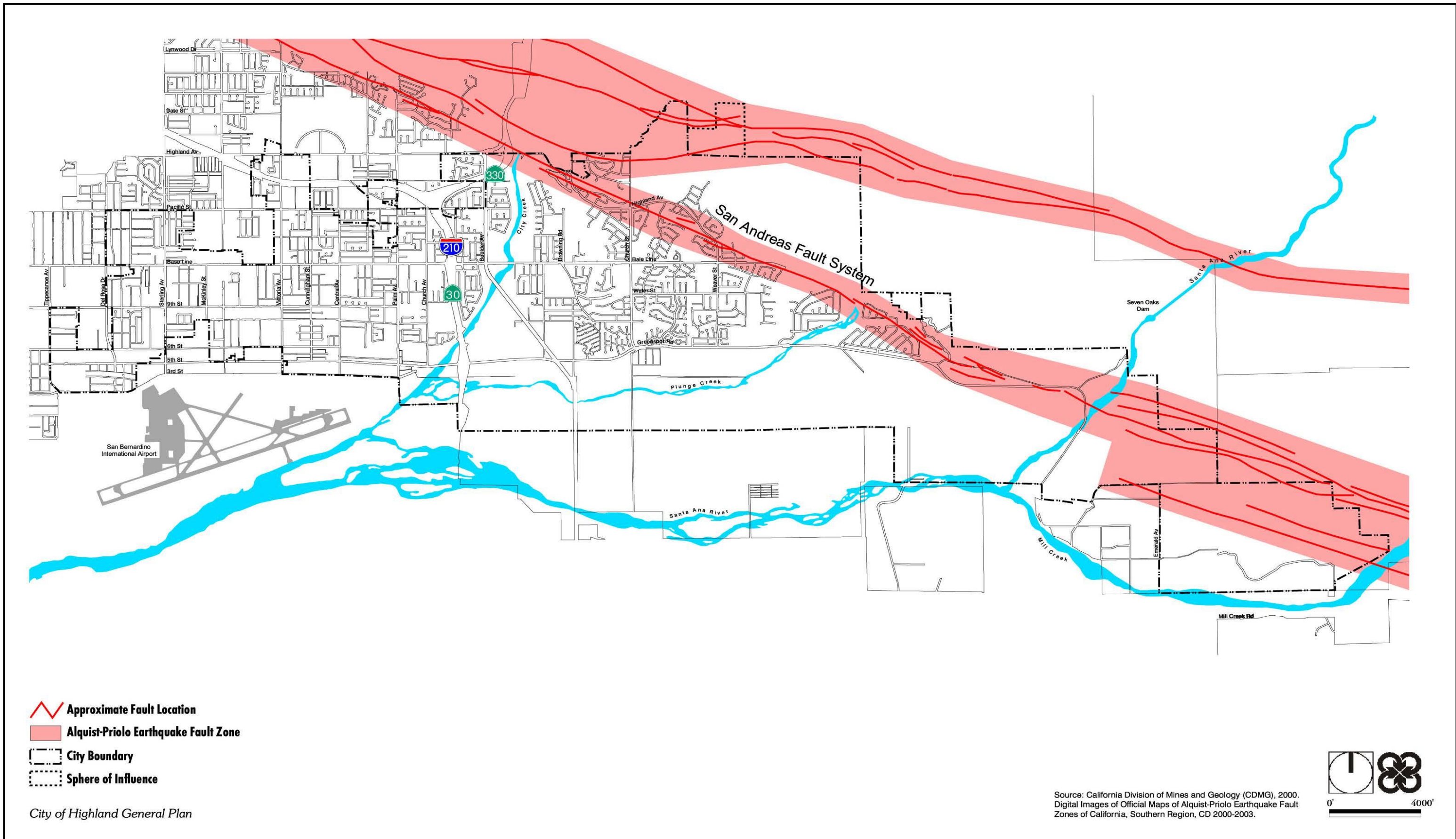
4.8.9 Significant and Unavoidable Impacts

As determined in the preceding environmental evaluation, no significant and unavoidable impacts relating to geology and soils will occur as a result of implementing the proposed project.



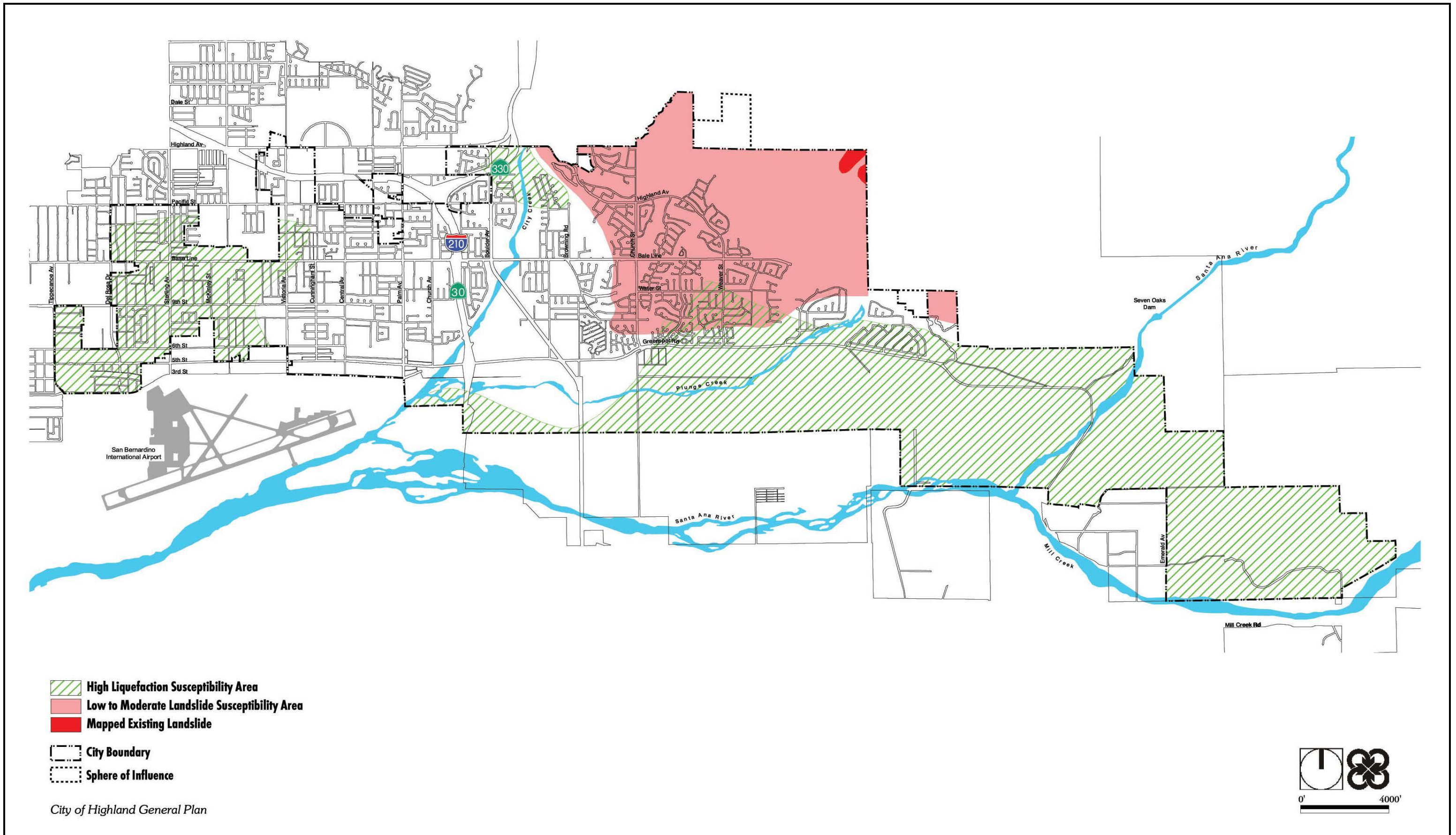
SOURCE: City of Highland General Plan, March 2006 (Figure 6.1)

FIGURE 4.8-1



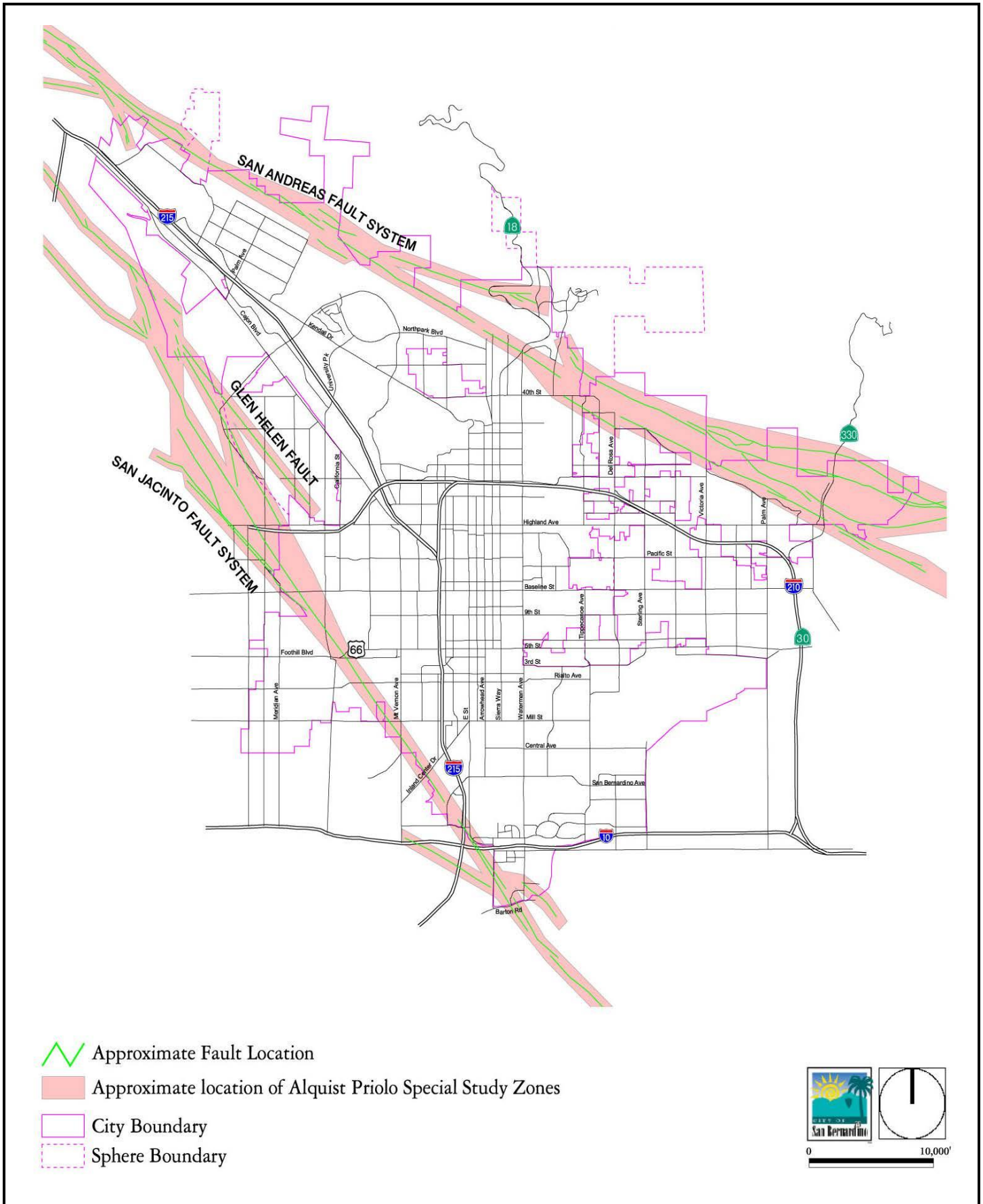
SOURCE: City of Highland General Plan, March 2006 (Figure 6.2)

FIGURE 4.8-2



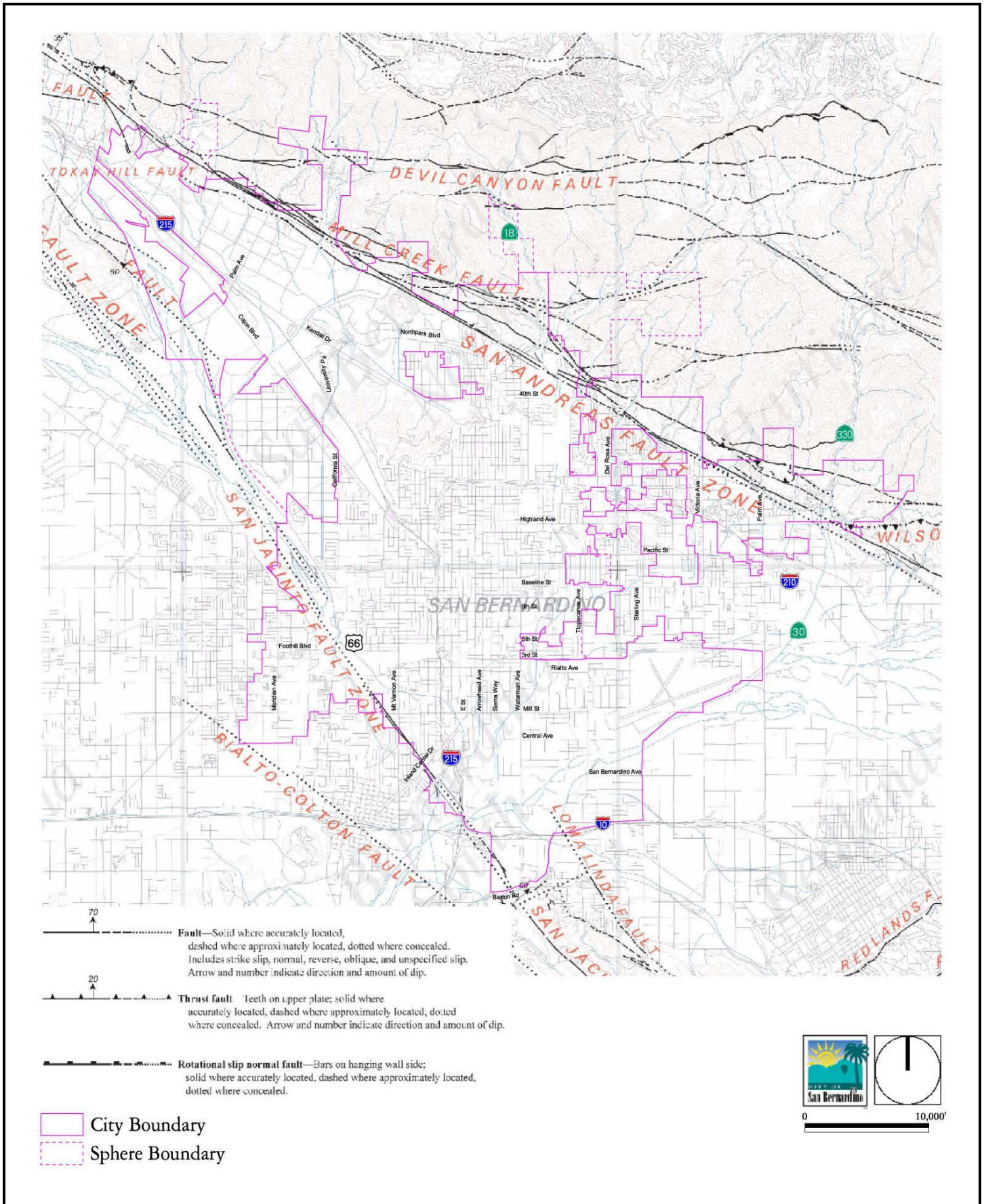
SOURCE: City of Highland General Plan, March 2006 (Figure 6.3)

FIGURE 4.8-3



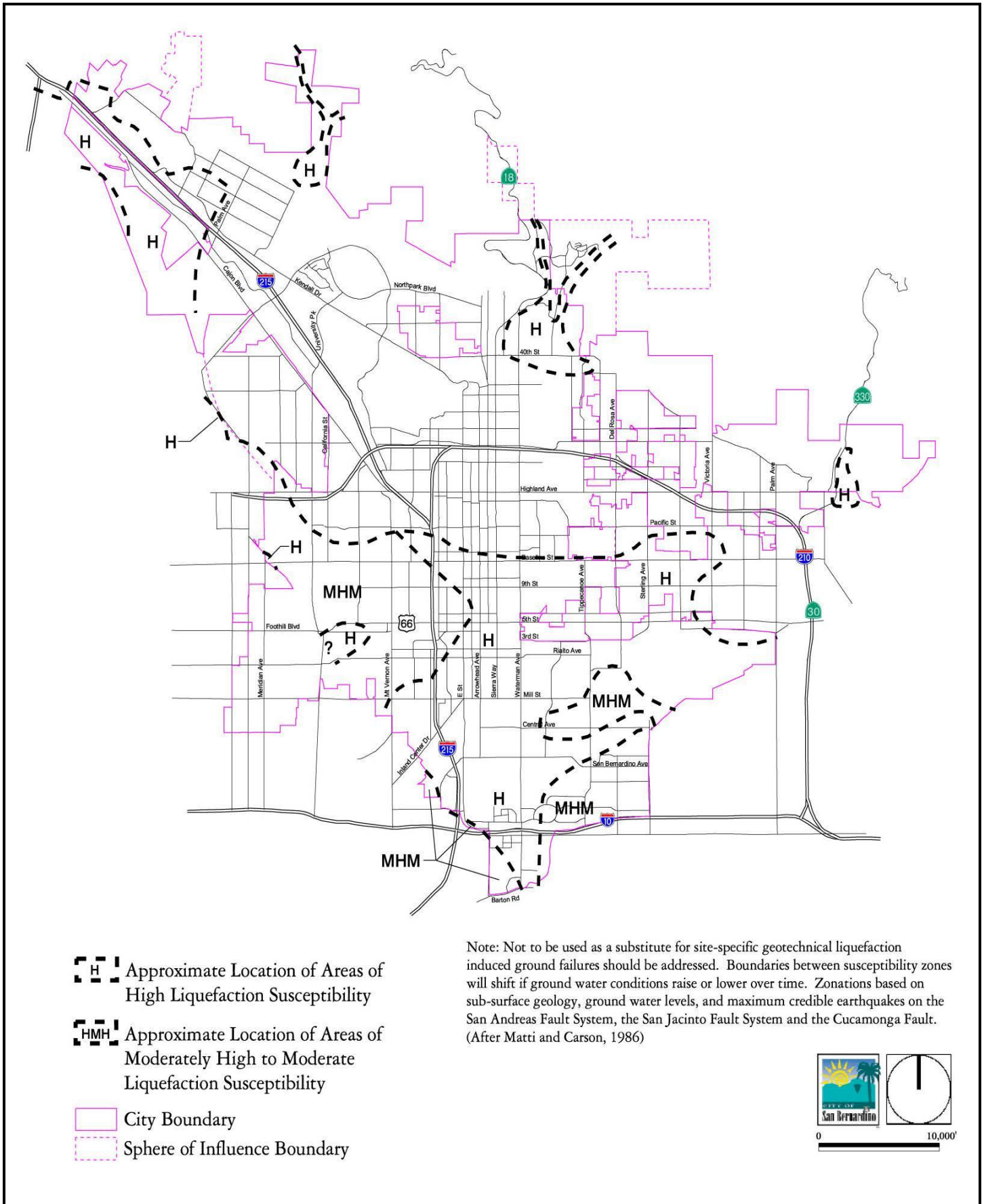
SOURCE: City of San Bernardino General Plan, November 2005 (Figure S-3)

FIGURE 4.8-4



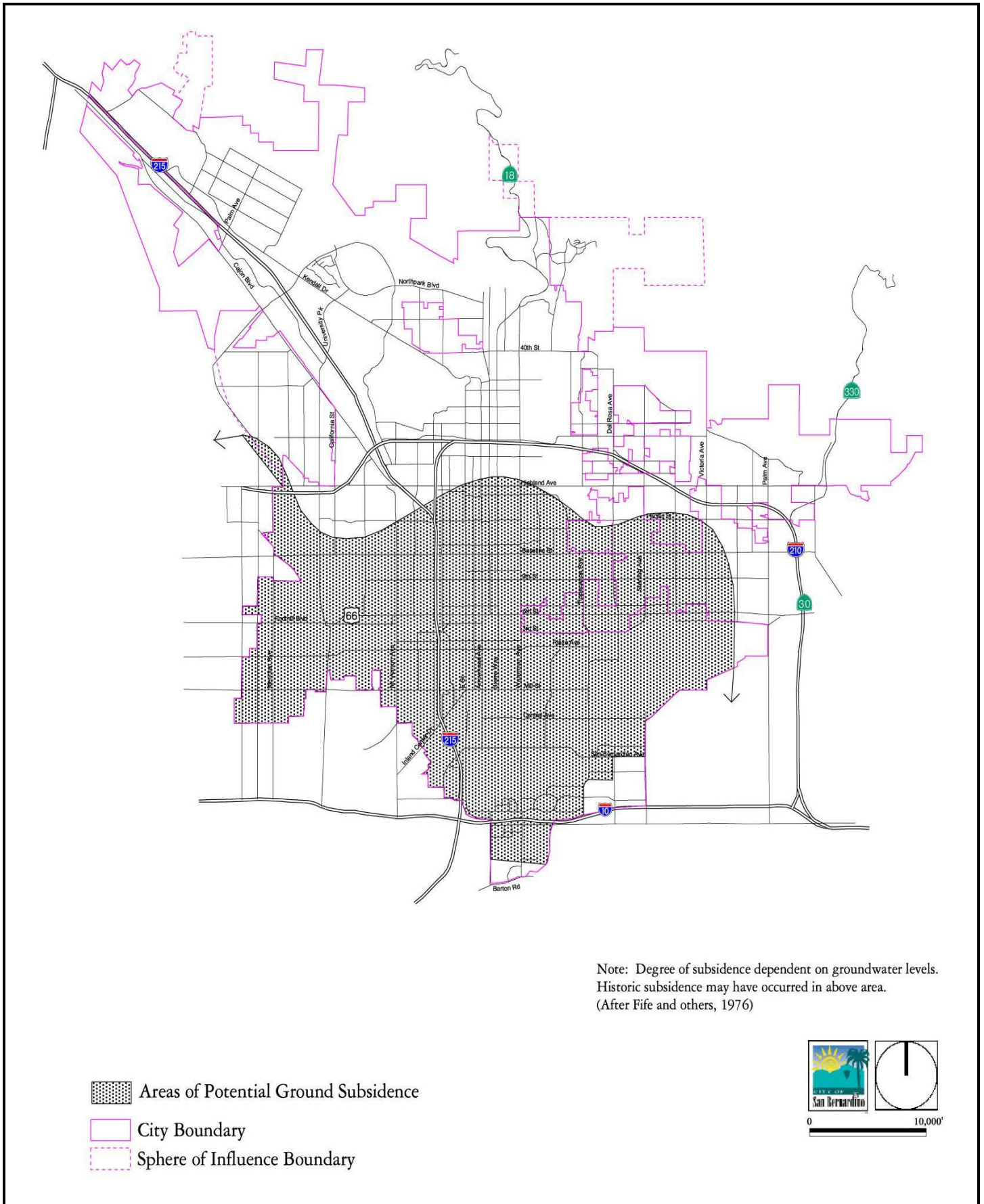
SOURCE: City of San Bernardino General Plan, November 2005 (Figure S-4)

FIGURE 4.8-5



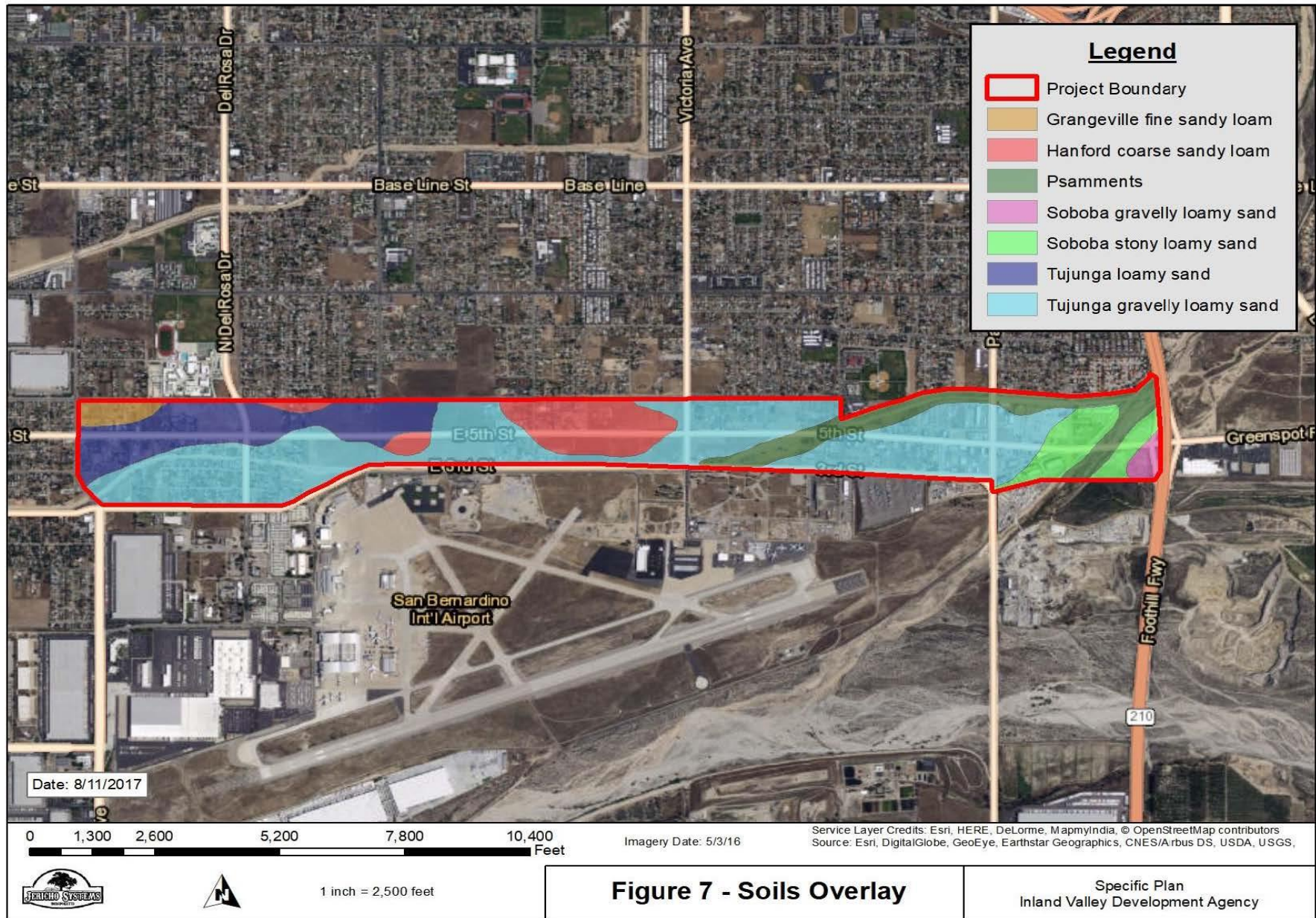
SOURCE: City of San Bernardino General Plan, November 2005 (Figure S-5)

FIGURE 4.8-6



SOURCE: City of San Bernardino General Plan, November 2005 (Figure S-6)

FIGURE 4.8-7



SOURCE: Jericho Systems, "General Biological Assessment Report...Inland Valley Development Agency Specific Plan Amendment" dated August 11, 2017

FIGURE 4.8-8

4.9 GREENHOUSE GAS

4.9.1 Introduction

This Subchapter will evaluate the environmental impacts to the issue area of Greenhouse Gas (Climate Change) from implementation of the proposed Airport Gateway Specific Plan (AGSP). The Project area covers approximately 678.13 acres. The Specific Plan area includes parcels in both the City of Highland (484.7 acres) and the City of San Bernardino (193.43 acres). The existing uses within the Specific Plan area and immediate vicinity include single-family and multi-family residential, small-lot commercial, open space, and industrial uses. Vacant parcels make up approximately one third of the overall acreage within the Specific Plan area. The AGSP would replace the existing uses within the Specific Plan area with approximately 9.27 million square feet of Mixed Use Business Park land uses.

This document is a full-scope Draft Environmental Impact Report (DEIR) for the above-described project and all of the standard issues related to Greenhouse Gas identified in Appendix G of the CEQA Guidelines will be addressed. Analysis of these issues will determine whether implementation of the AGSP would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The *Airport Gateway Specific Plan Greenhouse Gas Analysis* (GHGA) dated January 14, 2021 was prepared by Urban Crossroads to evaluate the potential impacts to greenhouse gas emissions and potential climate change impacts associated with construction and operation of the proposed AGSP over an approximately 20-year horizon. A copy of the GHGA is provided as Appendix 6 of Volume 2 of this DPEIR. Much of the information provided in the following sections is abstracted directly from this technical report with minor edits.

These issues pertaining to transportation will be discussed below as set in the following framework:

- 4.9.1 Introduction
- 4.9.2 Regulatory Setting
- 4.9.3 Environmental Setting
- 4.9.4 Thresholds of Significance
- 4.9.5 Methodology
- 4.9.6 Environmental Impacts
- 4.9.7 Cumulative Impacts
- 4.9.8 Unavoidable Adverse Impacts

The comments raised at the public scoping meeting or as part of the Notice of Preparation regarding emissions (greenhouse gas and air quality) issues can be found under Subchapter 4.4, Air Quality. A repeated grouping of comments that apply generally to greenhouse gas are repeated below for ease of reference.

NOP Comment Letter #2 (SCAQMD): The Comment Letter suggests that the Lead Agency utilize the South Coast Air Quality Management District (SCAQMD) CEQA Air Quality Handbook as guidance in the preparation of the air quality and greenhouse gas analysis.

Response: The SCAQMD CEQA Air Quality Handbook was consulted in drafting the technical appendices (Appendices 1 and 6 to Volume 2 of this DPEIR address Air Quality and Greenhouse Gas respectively) and in crafting the environmental analyses for the Air Quality and Greenhouse Gas (GHG) Subchapters (4.4 and 4.9).

NOP Comment Letter #2 (SCAQMD): The Comment Letter details the types of air quality and greenhouse gas impacts that should be analyzed in the EIR, including the types of emissions that should be quantified in the EIR, including analyzing overlapping operational and construction generated emissions, and performing a mobile source health risk assessment.

Response: The emissions were calculated and compared against the significance thresholds referenced in the comment letter. Overlapping construction and operational emissions have not been quantified as suggested in the comment letter. This is because IVDA believes it would be speculative to craft a construction scenario in correlation with an operational scenario when no specific projects have been put forth under the AGSP at this time. Essentially, in crafting such a combined scenario, there would be no correlation with reality when, if approved, specific development under the AGSP is proposed. Future developers and operators of facilities within the AGSP would be required to perform project-specific Air Quality and Greenhouse Gas analyses that would determine whether a given project falls under the assumptions provided in the project description for construction and operations, and the assumptions provided under the Air Quality and Greenhouse Gas (GHG) Subchapters (4.4 and 4.9). Second tier environmental documentation would be required where a future project under the AGSP does not fall under these assumptions.

*A mobile source health risk assessment, similar to the discussion above regarding analyzing construction and operational emissions concurrently, has not been conducted as part of this DEIR. This is, again, because in crafting a future mobile source health risk assessment (HRA), a scenario would need to be crafted that would have no bearing on reality, if approved, specific development under the AGSP is proposed. For instance, the HRA would require assumptions as to the specific locations of sensitive receptors in relation to mobile sources within the AGSP Planning Area. While it is assumed that residences north of 6th Street will remain in place, it would be speculative to determine where residences would remain within the AGSP Planning Area at a given moment in time as future development is proposed under the AGSP. Thus, the Air Quality Impact Analysis under Subchapter 4.4 relies on the implementation of MM **AQ-15**, which would require that, during each City's review process for individual project applications within the Specific Plan, projects that generate more than 100 diesel truck trips per day or projects that generate other toxic air contaminants (TACs) within a 100 foot buffer of the nearest sensitive receptor, shall submit a health risk assessment (HRA) to the City prior to future discretionary project approval.*

NOP Comment Letter #2 (SCAQMD): The Comment Letter outlines the need for mitigating air quality and greenhouse gas emissions, and recommends several specific mitigation measures that should be considered to minimize operational emissions generated by the AGSP, including:

- Limit the daily number of trucks allowed at the Proposed Project to levels analyzed in the Final CEQA document;

Response: The daily number of trucks allowed under the AGSP sets a threshold under which future site-specific second tier CEQA evaluation must fall under, or otherwise the site-specific second tier evaluation must evaluate the impacts from the increased daily trips beyond that which

has been identified under this analysis (refer to Subchapter 4.18, Transportation). Future site-specific development must be approved by the City within which the development is proposed, and the decision-making body will determine whether proposals that generate greater daily truck trips than analyzed herein are acceptable under the respective jurisdiction's Municipal Codes, General Plans, and other regulations therein.

- Provide electric vehicle (EV) charging stations or at a minimum, provide the electrical infrastructure;

*Response: MM **AQ-17** requires the minimum number of automobile electric vehicle (EV) charging stations required by the California Code of Regulations (CCR) Title 24 to be provided, and electrical infrastructure sufficiently sized to accommodate the potential installation of additional auto and truck EV charging stations shall be provided. Additionally, MM **AQ-17** requires final Project designs to provide for installation of conduit in tractor trailer parking areas for the purpose of accommodating potential installation of EV truck charging stations. MM **AQ-35** requires coordination with Edison to install EV Charging Stations incrementally over the life of the project.*

- Maximize use of solar energy by installing solar energy arrays;

*Response: MM **GHG-1** requires the construction of future buildings to be solar or other clean energy technology compatible, and clean energy ready. Each AGSP Development shall prepare new structures to provide either a solar photovoltaic panel system or other clean energy systems within 2 years of commencing operations.*

- Use light colored paving and roofing materials;

NOP Comment Letter #5 PCWJ: The Comment Letter suggests that IVDA create electrification standards for future uses under the AGSP, and also conveys interest in the AGSP creating a Carbon Neutral Plan.

*Response: Refer to Subchapter 4.4, Air Quality. MM **AQ-11** would require the use of electric or alternative fueled construction equipment where technically feasible and/or commercially available; MM **AQ-12** requires the use of use zero emission (ZE) or near-zero emissions (NZE) trucks, if and when feasible; at a minimum, future development shall be required to use 2010 and newer haul trucks (e.g., including material delivery trucks and soil import/export, and trucks required for operation). Once required to comply with State law, or otherwise comply with SCAQMD Rules, ZE and NZE on-road haul trucks shall be mandatory for use by future AGSP Development; until this point, the use of ZE and NZE on-road haul trucks shall be required once such vehicles are readily available, and comparable in cost (within a 20% margin) to non-ZE/NZE on-road haul trucks. MM **AQ-18** requires the minimum number of EV charging stations required by the California Code of Regulations (CCR) Title 24 shall be provided and for the development to include electrical infrastructure sufficiently sized to accommodate the potential installation of additional auto and truck EV charging stations. MM **AQ-19** requires final Project designs to provide for installation of conduit in tractor trailer parking areas for the purpose of accommodating potential installation of EV truck charging stations. MM **AQ-22** requires all on-site outdoor cargo-handling equipment (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) and all on-site indoor forklifts will be powered by electricity. MM **AQ-37** requires landscaping contractor(s) that uses electric landscaping equipment, if contactors with electric equipment are feasible to retain within the immediate project area. MM **AQ-28** requires electric or alternatively fueled sweepers. Under Subchapter 4.9, Greenhouse Gas, MM **GHG-1**,*

requires future buildings over 50,000 SF to be solar or other clean energy technology compatible, and clean energy ready, and new structures to provide either a solar photovoltaic panel system or other clean energy systems within 2 years of commencing operations. Additionally, MM **GHG-2** requires that, for future AGSP developments with more than 10 employees or more than 10 company vehicles, a GHG Emissions Reduction Plan (ERP) shall be submitted to the pertinent City for review and approval. This ERP can include energy source reductions, additional EV charging stations, use of electric vehicles, etc.

Based on the above, while the AGSP does not require full “electrification” of future AGSP developments, many aspects of each future development under the AGSP will be required to be electric. In regards to a carbon neutral plan, this concept has been reviewed by the AGSP Project Team, in particular by the Cities of San Bernardino and Highland, and at this time, a plan of this type has been deemed not feasible given that no specific future development under the AGSP has been proposed, and that a plan of this type would not be feasible to impose as a blanket measure for all future development under the AGSP.

NOP Comment Letter #7 Teamsters: The Comment Letter recommends that the DEIR contain the following: Mitigation such as, fence line testing of greenhouse gas emissions; energy consumption measuring, reporting, and requirements for renewable energy technology, such as solar panels; flood mitigation; requirements for electrification of fleets associated with vehicle-focused industrial, manufacturing, and logistical uses; a tree planting program to ensure sufficient shade and avoiding creation of intense heat sinks; and, other best practices that go above and beyond minimum requirements; A study of specific impacts of different types of warehouse and logistical uses, and in particular the different types of vehicles (freight, trucks, commercial vans, passenger vehicles) to be used, and their impact on emissions.

*Response: Please refer to the response to NOP Comment Letter #5 PCWJ, above, as the issue of renewable energy technology and electrification of fleets are fully addressed therein. Subchapter 4.4, Air Quality, identifies MM **AQ-39**, which would require future development under the AGSP to maximize the planting of drought resistant trees in landscaping and parking lots and when/if recycled water becomes available in the future, landscaping shall be supported by this alternative source of water supply. While a tree planting program has not been considered, IVDA believes that this measure is sufficient to ensure that the area does not experience intense heat sinks and maximizes the planting of, appropriately given the sources of water available, drought tolerant trees. Given the buffering that would be created through MM **HAZ-1**, discussed above under NOP Comment Letter #2 (SCAQMD), the creation of fence line testing is not anticipated to be necessary to protect the community from the health effects of AGSP generated emissions. This is further bolstered by MM **AQ-15**, which requires that, during each City’s review process for individual project applications within the Specific Plan, projects that generate more than 100 diesel truck trips per day or projects that generate other toxic air contaminants (TACs) within a 100 foot buffer of the nearest sensitive receptor, shall submit a health risk assessment (HRA) to the City prior to future discretionary project approval. This measure stipulates that if the HRA shows that the incremental cancer risk of an individual Project exceeds 10 in 1 million or the appropriate noncancer hazard index exceeds 1.0, the individual Project’s will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Thus, IVDA believes that this measure would ensure that the necessary minimization of health risk would be ensured through the implementation of this measure, ultimately serving as a sort of buffering measure in and of itself, as it would prevent*

future projects from emitting and contributing to cancer risk or noncancer health risk over the identified thresholds.

The Air Quality, Energy, and GHG Impact Analyses provided as Appendices 1, 4, and 6 of Volume 2 to this DPEIR each assess the impacts of an intensive mix of uses under the AGSP. The mix of uses and assumptions thereof are provided in Table 3-3 in Chapter 3, the Project Description. Given that many of the mitigation measures that have been provided to reduce mobile source emissions were not attributed to the emissions modeling calculations, the emissions reduction from implementation of the extensive air quality emissions reduction and GHG emissions reduction measures found in Subchapters 4.4 and 4.9 would ensure emissions reductions that go beyond the minimum requirements. The Air Quality, Energy, and GHG Impact Analyses provided as Appendices 1, 4 and 6 of Volume 2 to this DPEIR serve as the technical reports providing the estimated emissions generated from mobile sources listed in this comment on the environment as a result of implementation of the AGSP.

Scoping Meeting Speaker #1 Andrea: The speaker suggests that fence line NO_x, GHG, DPM tests between industrial and residential uses should be considered, as should monitoring the area for air quality. They suggest a mitigation measure to enforce this concept.

Response: Please refer to the response to NOP Comment Letter #7 Teamsters, above, as the issue of feasibility of fence line testing is fully addressed therein.

Scoping Meeting Speaker #1 Andrea: The speaker suggests that the Project Team communicate the AQ emissions and GHG generated to community. The speaker suggests reporting requirements for emissions / energy use, and that those reports should be made available to the community.

Response: Please refer to the response to NOP Comment Letter #7 Teamsters, above, as the issue of feasibility of fence line testing and reporting is addressed therein.

Scoping Meeting Speaker #1 Andrea: The speaker suggests that there should be a requirement for electrification of the area, cars, trucks, buildings. Would there be an electrification plan? The speaker suggests a similar plan that considered 25% electric by 2030, 50% by 2035, etc.

Response: Please refer to the response to NOP Comment Letter #5 PCWJ, above, as the issue of electrification is fully addressed therein.

Scoping Meeting Speaker #7 Yassi: The speaker asks: Would the document consider mobility initiatives or car sharing?

*Response: Yes, it does. MM **GHG-2** requires future AGSP developments with more than 10 employees or more than 10 company vehicles to submit a GHG Emissions Reduction Plan (ERP) to the pertinent City for review and approval. This ERP may include Implementation of Ride Sharing Program (Mobile Source); Maintenance of an onsite bicycle sharing program (Mobile Source); Establishment and support of a mass transit use program (including adjusting hours of operations to complement local mass transit operations, Mobile Source); and, Provision of secure bicycle parking facilities (Mobile Source). Furthermore, MM **TRAN-8** which addresses Vehicle Miles Traveled (VMT) reduction measures, including mobility initiatives, pedestrian network improvements, car-sharing programs, telecommuting, and enhanced bike parking.*

Scoping Meeting Speaker #7 Yassi: The speaker suggests that new buildings in the overlay should be electrified, including heat pumps, appliances, and the speaker suggests working with Edison on an assessment.

Response: Please refer to the response to NOP Comment Letter #5 PCWJ, above, as the issue of electrification is addressed therein.

Scoping Meeting Speaker #7 Yassi: The speaker suggests mitigation: electrification, 1,000-foot buffers, and tree canopy.

Response: Please refer to the response under Scoping Meeting Speaker #1 Andrea, above, as this comment addresses the concern for buffering and health risks. Please refer to the response to NOP Comment Letter #7 Teamsters, above, as the issue of tree planting programs are fully addressed therein.

The following reference documents were used in preparing this section of the DEIR.

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- Urban Crossroads, January 14, 2021. *Airport Gateway Specific Plan Greenhouse Gas Analysis (GHGA)*
- Urban Crossroads, January 14, 2021. *Airport Gateway Specific Plan Air Quality Impact Analysis (AQIA)*

4.9.2 Regulatory Setting

International

Climate change is a global issue involving GHG emissions from all around the world; therefore, international organizations and countries such as the ones discussed below have made an effort to reduce GHGs.

IPCC

In 1988, the United Nations (U.N.) and the World Meteorological Organization established the IPCC to assess the scientific, technical and socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nation's Framework Convention on Climate Change (Convention)

On March 21, 1994, the U.S. joined a number of countries around the world in signing the Convention. Under the Convention, governments gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

International Climate Change Treaties

The Kyoto Protocol is an international agreement linked to the Convention. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions at an average of 5% against 1990 levels over the five-year period 2008–2012. The Convention (as discussed above) encouraged industrialized

countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of “common but differentiated responsibilities.”

In 2001, President George W. Bush indicated that he would not submit the treaty to the U.S. Senate for ratification, which effectively ended American involvement in the Kyoto Protocol. In December 2009, international leaders met in Copenhagen to address the future of international climate change commitments post-Kyoto. No binding agreement was reached in Copenhagen; however, the Committee identified the long-term goal of limiting the maximum global average temperature increase to no more than 2 degrees Celsius (°C) above pre-industrial levels, subject to a review in 2015. The UN Climate Change Committee held additional meetings in Durban, South Africa in November 2011; Doha, Qatar in November 2012; and Warsaw, Poland in November 2013. The meetings are gradually gaining consensus among participants on individual climate change issues.

On September 23, 2014 more than 100 Heads of State and Government and leaders from the private sector and civil society met at the Climate Summit in New York hosted by the U.N. At the Summit, heads of government, business and civil society announced actions in areas that would have the greatest impact on reducing emissions, including climate finance, energy, transport, industry, agriculture, cities, forests, and building resilience.

Parties to the U.N. Framework Convention on Climate Change (UNFCCC) reached a landmark agreement on December 12, 2015 in Paris, charting a fundamentally new course in the two-decade-old global climate effort. Culminating a four-year negotiating round, the new treaty ends the strict differentiation between developed and developing countries that characterized earlier efforts, replacing it with a common framework that commits all countries to put forward their best efforts and to strengthen them in the years ahead. This includes, for the first time, requirements that all parties report regularly on their emissions and implementation efforts and undergo international review.

The agreement and a companion decision by parties were the key outcomes of the conference, known as the 21st session of the UNFCCC Conference of the Parties (COP) 21. Together, the Paris Agreement and the accompanying COP decision:

- Reaffirm the goal of limiting global temperature increase well below 2°C, while urging efforts to limit the increase to 1.5 degrees;
- Establish binding commitments by all parties to make “nationally determined contributions” (NDCs), and to pursue domestic measures aimed at achieving them;
- Commit all countries to report regularly on their emissions and “progress made in implementing and achieving” their NDCs, and to undergo international review;
- Commit all countries to submit new NDCs every five years, with the clear expectation that they will “represent a progression” beyond previous ones;
- Reaffirm the binding obligations of developed countries under the UNFCCC to support the efforts of developing countries, while for the first time encouraging voluntary contributions by developing countries too;
- Extend the current goal of mobilizing \$100 billion a year in support by 2020 through 2025, with a new, higher goal to be set for the period after 2025;
- Extend a mechanism to address “loss and damage” resulting from climate change, which explicitly will not “involve or provide a basis for any liability or compensation;”

- Require parties engaging in international emissions trading to avoid “double counting”; and
- Call for a new mechanism, similar to the Clean Development Mechanism under the Kyoto Protocol, enabling emission reductions in one country to be counted toward another country’s NDC (C2ES 2015a).

On November 4, 2019, the Trump administration formally notified the U.N. that the U.S. would withdraw from the Paris Agreement. It should be noted that withdrawal will be effective one year after notification in 2020.

National

Prior to the last decade, there have been no concrete federal regulations of GHGs or major planning for climate change adaptation. The following are actions regarding the federal government, GHGs, and fuel efficiency.

GHG Endangerment

In *Massachusetts v. Environmental Protection Agency* (EPA) 549 U.S. 497 (2007), decided on April 2, 2007, the U.S. Supreme Court (Supreme Court) found that four GHGs, including CO₂, are air pollutants subject to regulation under Section 202(a)(1) of the Federal Clean Air Act (CAA). The Court held that the EPA Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the CAA:

Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs—CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆—in the atmosphere threaten the public health and welfare of current and future generations.

Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section “Clean Vehicles” below. After a lengthy legal challenge, the Supreme Court declined to review an Appeals Court ruling that upheld the EPA Administrator’s findings.

Clean Vehicles

Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the U.S. On April 1, 2010, the EPA and the Department of Transportation’s National Highway Traffic Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the U.S.

The first phase of the national program applies to passenger cars, light-duty trucks, and medium-duty (MD) passenger vehicles, covering model years 2012 through 2016. They require these

vehicles to meet an estimated combined average emissions level of 250 grams of CO₂ per mile, equivalent to 35.5 miles per gallon (mpg) if the automobile industry were to meet this CO₂ level solely through fuel economy improvements. Together, these standards would cut CO₂ emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the NHTSA issued final rules on a second-phase joint rulemaking establishing national standards for light-duty vehicles for model years 2017 through 2025 in August 2012. The new standards for model years 2017 through 2025 apply to passenger cars, light-duty trucks, and MD passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO₂ in model year 2025, which is equivalent to 54.5 mpg if achieved exclusively through fuel economy improvements.

The EPA and the U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks (HDT) and buses on September 15, 2011, effective November 14, 2011. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20% reduction in CO₂ emissions and fuel consumption by the 2018 model year. For HDT and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10% reduction for gasoline vehicles and a 15% reduction for diesel vehicles by the 2018 model year (12 and 17% respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10% reduction in fuel consumption and CO₂ emissions from the 2014 to 2018 model years.

On August 2, 2018, the NHTSA in conjunction with the EPA, released a notice of proposed rulemaking, the *Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks* (SAFE Vehicles Rule). The SAFE Vehicles Rule was proposed to amend existing Corporate Average Fuel Economy (CAFE) and tailpipe CO₂ standards for passenger cars and light trucks and to establish new standards covering model years 2021 through 2026. As of March 31, 2020, the NHTSA and EPA finalized the SAFE Vehicle Rule which increased stringency of CAFE and CO₂ emissions standards by 1.5% each year through model year 2026.

Mandatory Reporting of GHGs

The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of GHGs Rule, which became effective January 1, 2010. The rule requires reporting of GHG emissions from large sources and suppliers in the U.S. and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons per year (MT/yr) or more of GHG emissions are required to submit annual reports to the EPA.

New Source Review

The EPA issued a final rule on May 13, 2010, that establishes thresholds for GHGs that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule “tailors” the requirements of these CAA permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the Federal Code of Regulations, the EPA states:

“This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the CAA, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to GHG sources, starting with the largest GHG emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for GHG emissions until at least April 30, 2016.”

The EPA estimates that facilities responsible for nearly 70% of the national GHG emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation’s largest GHG emitters—power plants, refineries, and cement production facilities.

Standards of Performance for GHG Emissions for New Stationary Sources: Electric Utility Generating Units

As required by a settlement agreement, the EPA proposed new performance standards for emissions of CO₂ for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts (MW) would be required to meet an output-based standard of 1,000 pounds (lbs) of CO₂ per MW-hour (MWh), based on the performance of widely used natural gas combined cycle technology. It should be noted that on February 9, 2016 the Supreme Court issued a stay of this regulation pending litigation. Additionally, the current EPA Administrator has also signed a measure to repeal the Clean Power Plan, including the CO₂ standards. The Clean Power Plan was officially repealed on June 19, 2019, when the EPA issued the final Affordable Clean Energy rule (ACE). Under ACE, new state emission guidelines were established that provided existing coal-fired electric utility generating units with achievable standards.

Cap-and-Trade

Cap-and-trade refers to a policy tool where emissions are limited to a certain amount and can be traded or provides flexibility on how the emitter can comply. Successful examples in the U.S. include the Acid Rain Program and the N₂O Budget Trading Program and Clean Air Interstate Rule in the northeast. There is no federal GHG cap-and-trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap-and-trade.

The Regional GHG Initiative is an effort to reduce GHGs among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps CO₂ emissions from power plants, auctions CO₂ emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008 and in 2020 has retained all participating states.

The Western Climate Initiative (WCI) partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15% below 2005 levels by 2020. The partners were originally California, British Columbia, Manitoba, Ontario, and Quebec. However, Manitoba and Ontario are not currently participating. California linked with Quebec’s cap-and-trade system January 1, 2014, and joint offset auctions took place in 2015. While the WCI has yet to publish whether it has successfully reached the 2020 emissions goal initiative set in 2007, SB 32, requires

that California, a major partner in the WCI, adopt the goal of reducing statewide GHG emissions to 40% below the 1990 level by 2030.

SmartWay Program

The SmartWay Program is a public-private initiative between the EPA, large and small trucking companies, rail carriers, logistics companies, commercial manufacturers, retailers, and other federal and state agencies. Its purpose is to improve fuel efficiency and the environmental performance (reduction of both GHG emissions and air pollution) of the goods movement supply chains. SmartWay is comprised of four components:

1. SmartWay Transport Partnership: A partnership in which freight carriers and shippers commit to benchmark operations, track fuel consumption, and improve performance annually.
2. SmartWay Technology Program: A testing, verification, and designation program to help freight companies identify equipment, technologies, and strategies that save fuel and lower emissions.
3. SmartWay Vehicles: A program that ranks light-duty cars and small trucks and identifies superior environmental performers with the SmartWay logo.
4. SmartWay International Interests: Guidance and resources for countries seeking to develop freight sustainability programs modeled after SmartWay.

SmartWay effectively refers to requirements geared towards reducing fuel consumption. Most large trucking fleets driving newer vehicles are compliant with SmartWay design requirements. Moreover, over time, all HDTs will have to comply with CARB GHG Regulation that is designed with the SmartWay Program in mind, to reduce GHG emissions by making them more fuel-efficient. For instance, in 2015, 53 foot or longer dry vans or refrigerated trailers equipped with a combination of SmartWay-verified low-rolling resistance tires and SmartWay-verified aerodynamic devices would obtain a total of 10% or more fuel savings over traditional trailers.

- Through the SmartWay Technology Program, the EPA has evaluated the fuel saving benefits of various devices through grants, cooperative agreements, emissions and fuel economy testing, demonstration projects and technical literature review. As a result, the EPA has determined the following types of technologies provide fuel saving and/or emission reducing benefits when used properly in their designed applications, and has verified certain products:
- Idle reduction technologies – less idling of the engine when it is not needed would reduce fuel consumption.
- Aerodynamic technologies minimize drag and improve airflow over the entire tractor-trailer vehicle. Aerodynamic technologies include gap fairings that reduce turbulence between the tractor and trailer, side skirts that minimize wind under the trailer, and rear fairings that reduce turbulence and pressure drop at the rear of the trailer.
- Low rolling resistance tires can roll longer without slowing down, thereby reducing the amount of fuel used. Rolling resistance (or rolling friction or rolling drag) is the force resisting the motion when a tire rolls on a surface. The wheel will eventually slow down because of this resistance.
- Retrofit technologies include things such as diesel particulate filters, emissions upgrades (to a higher tier), etc., which would reduce emissions.
- Federal excise tax exemptions.

California

Legislative Actions to Reduce GHGs

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation such as the landmark AB 32 was specifically enacted to address GHG emissions. Other legislation such as Title 24 and Title 20 energy standards were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

Executive Order S-3-05

Former California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for GHG emissions:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80% below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

AB 32

The California State Legislature enacted AB 32, which requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. "GHGs" as defined under AB 32 include CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs. CARB is the state agency charged with monitoring and regulating sources of GHGs. Pursuant to AB 32, CARB adopted regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 states the following:

"Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems."

CARB approved the 1990 GHG emissions level of 427 MMTCO₂e on December 6, 2007 (33). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 MMTCO₂e. Emissions in 2020 in a "business as usual" (BAU) scenario were estimated to be 596 MMTCO₂e, which do not account for reductions from AB 32 regulations. At that level, a 28.4% reduction was required to achieve the 427 MMTCO₂e 1990 inventory. In October 2010, CARB prepared an updated BAU 2020 forecast to account for the recession and slower forecasted growth. The forecasted inventory without the benefits of adopted regulation is now estimated at 545 MMTCO₂e. Therefore, under the updated forecast, a 21.7% reduction from BAU is required to achieve 1990 levels.

Progress in Achieving AB 32 Targets and Remaining Reductions Required

The State has made steady progress in implementing AB 32 and achieving targets included in Executive Order S-3-05. The progress is shown in updated emission inventories prepared by CARB for 2000 through 2012. The State has achieved the Executive Order S-3-05 target for 2010 of reducing GHG emissions to 2000 levels. As shown below, the 2010 emission inventory achieved this target.

- 1990: 427 MMTCO₂e (AB 32 2020 target)
- 2000: 463 MMTCO₂e (an average 8% reduction needed to achieve 1990 base)
- 2010: 450 MMTCO₂e (an average 5% reduction needed to achieve 1990 base)

CARB has also made substantial progress in fulfilling its goal of achieving 1990 emissions levels by 2020. As described earlier in this section, CARB revised the 2020 BAU inventory forecast to account for new lower growth projections, which resulted in a new lower reduction from BAU to achieve the 1990 base. The previous reduction from 2020 BAU needed to achieve 1990 levels was 28.4% and the latest reduction from 2020 BAU is 21.7%.

- 2020: 545 MMTCO₂e BAU (an average 21.7% reduction from BAU needed to achieve 1990 base)

SB 375 – the Sustainable Communities and Climate Protection Act of 2008

Passing the Senate on August 30, 2008, Senate Bill (SB) 375 was signed by the Governor on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits over 40% of the total GHG emissions in California. SB 375 states, “Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32.” SB 375 does the following: it (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

SB 375 also requires Metropolitan Planning Organizations (MPOs) to prepare a Sustainable Communities Strategy (SCS) within the Regional Transportation Plan (RTP) that guides growth while taking into account the transportation, housing, environmental, and economic needs of the region. SB 375 uses CEQA streamlining as an incentive to encourage residential projects, which help achieve AB 32 goals to reduce GHG emissions. Although SB 375 does not prevent CARB from adopting additional regulations, such actions are not anticipated in the foreseeable future.

Concerning CEQA, SB 375, as codified in Public Resources Code Section 21159.28, states that CEQA findings for certain projects are not required to reference, describe, or discuss (1) growth inducing impacts, or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network, if the project:

1. Is in an area within an approved sustainable communities’ strategy or an alternative planning strategy that CARB accepts as achieving the GHG emission reduction targets.
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies).
3. Incorporates the mitigation measures required by an applicable prior environmental document.

AB 1493

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the

regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the U.S. District Court for the District of Columbia in 2011.

The second phase of the implementation for the Pavley bill is currently in effect and was incorporated into Amendments to the Low-Emission Vehicle Program (LEV III) or the Advanced Clean Cars program. The Advanced Clean Car program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation will reduce GHGs from new cars by 34% from 2016 levels by 2025. The new rules will clean up gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid electric vehicles (EV) and hydrogen fuel cell cars. The package will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California.

SB 350— Clean Energy and Pollution Reduction Act of 2015

In October 2015, the legislature approved, and the Governor signed, SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the RPS, higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for EV charging stations. Provisions for a 50% reduction in the use of petroleum statewide were removed from the Bill because of opposition and concern that it would prevent the Bill's passage. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33% to 50% by 2030, with interim targets of 40% by 2024, and 25% by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the California Energy Commission (CEC), and local publicly owned utilities.
- Reorganize the Independent System Operator to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

SB 32

On September 8, 2016, Governor Jerry Brown signed the Senate Bill (SB) 32 and its companion bill, AB 197. SB 32 requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal of 1990 levels by 2020 and provides an intermediate goal to achieving S-3-05, which sets a statewide GHG reduction target of 80% below 1990 levels by 2050. AB 197 creates a legislative committee to oversee regulators to ensure that CARB not only responds to the Governor, but also the Legislature.

CARB Scoping Plan

CARB's Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State's emissions to 1990 levels by the year 2020 to comply with AB 32. The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33%;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the LCFS; and
- Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

CARB approved the First Scoping Plan Update on May 22, 2014. The First Scoping Plan Update identifies the next steps for California's climate change strategy. The First Scoping Plan Update shows how California continues on its path to meet the near-term 2020 GHG limit, but also sets a path toward long-term, deep GHG emission reductions. The report establishes a broad framework for continued emission reductions beyond 2020, on the path to 80% below 1990 levels by 2050. The First Scoping Plan Update identifies progress made to meet the near-term objectives of AB 32 and defines California's climate change priorities and activities for the next several years. The First Scoping Plan Update does not set new targets for the State but describes a path that would achieve the long term 2050 goal of Executive Order S-3-05 for emissions to decline to 80% below 1990 levels by 2050.

Forecasting the amount of emissions that would occur in 2020 if no actions are taken was necessary to assess the amount of reductions California must achieve to return to the 1990 emissions level by 2020 as required by AB 32. The no-action scenario is known as "business-as-usual" or BAU. CARB originally defined the BAU scenario as emissions in the absence of any GHG emission reduction measures discussed in the Scoping Plan.

As part of CEQA compliance for the Scoping Plan, CARB prepared a Supplemental Functional Equivalent Document (FED) in 2011. The FED included an updated 2020 BAU emissions inventory projection based on current economic forecasts (i.e., as influenced by the economic downturn) and emission reduction measures already in place, replacing its prior 2020 BAU emissions inventory. CARB staff derived the updated emissions estimates by projecting emissions growth, by sector, from the state's average emissions from 2006–2008. The new BAU estimate includes emission reductions for the million-solar-roofs program, the AB 1493 motor vehicle GHG emission standards, and the LCFS. In addition, CARB factored into the 2020 BAU inventory emissions reductions associated with 33% RPS for electricity generation. The updated BAU estimate of 507 MMTCO_{2e} by 2020 requires a reduction of 80 MMTCO_{2e}, or a 16% reduction below the estimated BAU levels to return to 1990 levels (i.e., 427 MMTCO_{2e}) by 2020.

In order to provide a BAU reduction that is consistent with the original definition in the Scoping Plan and with threshold definitions used in thresholds adopted by lead agencies for CEQA purposes and many CAPs, the updated inventory without regulations was also included in the Supplemental FED. CARB 2020 BAU projection for GHG emissions in California was originally estimated to be 596 MMTCO_{2e}. The updated CARB 2020 BAU projection in the Supplemental FED is 545 MMTCO_{2e}. Considering the updated BAU estimate of 545 MMTCO_{2e} by 2020, CARB estimates a 21.7% reduction below the estimated statewide BAU levels is necessary to return to

1990 emission levels (i.e., 427 MMTCO₂e) by 2020, instead of the approximate 28.4% BAU reduction previously reported under the original Climate Change Scoping Plan.

2017 Climate Change Scoping Plan Update

In compliance with AB 32 and the 2008 Scoping Plan, the target year 2020 has been fulfilled and will look onward to the 2017 Scoping Plan that should be in compliance by 2030.

In November 2017, CARB released the 2017 Scoping Plan Update, which identifies the State's post-2020 reduction strategy. The 2017 Scoping Plan Update reflects the 2030 target of a 40% reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Key programs that the proposed Second Update builds upon include the Cap-and-Trade Regulation, the LCFS, and much cleaner cars, trucks and freight movement, utilizing cleaner, renewable energy, and strategies to reduce CH₄ emissions from agricultural and other wastes.

The 2017 Scoping Plan Update establishes a new emissions limit of 260 MMTCO₂e for the year 2030, which corresponds to a 40% decrease in 1990 levels by 2030.

California's climate strategy will require contributions from all sectors of the economy, including the land base, and will include enhanced focus on zero- and near-zero-emission (ZE/NZE) vehicle technologies; continued investment in renewables, including solar roofs, wind, and other distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (CH₄, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for direct GHG reductions at refineries will further support air quality co-benefits in neighborhoods, including in disadvantaged communities historically located adjacent to these large stationary sources, as well as efforts with California's local air pollution control and air quality management districts (air districts) to tighten emission limits on a broad spectrum of industrial sources. Major elements of the 2017 Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing ZEV buses and trucks.
- LCFS, with an increased stringency (18% by 2030).
- Implementing SB 350, which expands the RPS to 50% RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of zero-emission vehicles (ZEV) trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy (SLPS), which focuses on reducing CH₄ and hydrofluorocarbon emissions by 40% and anthropogenic black carbon emissions by 50% by year 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20% reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Note, however, that the 2017 Scoping Plan acknowledges that:

"[a]chieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to

mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA.”

In addition to the statewide strategies listed above, the 2017 Scoping Plan Update also identifies local governments as essential partners in achieving the State’s long-term GHG reduction goals and identifies local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends that local governments achieve a community-wide goal to achieve emissions of no more than 6 metric tons of CO₂e (MTCO₂e) or less per capita by 2030 and 2 MTCO₂e or less per capita by 2050. For CEQA projects, CARB states that lead agencies may develop evidenced-based bright-line numeric thresholds—consistent with the Scoping Plan and the State’s long-term GHG goals—and projects with emissions over that amount may be required to incorporate on-site design features and mitigation measures that avoid or minimize project emissions to the degree feasible; or, a performance-based metric using a CAP or other plan to reduce GHG emissions is appropriate.

According to research conducted by the Lawrence Berkeley National Laboratory (LBNL) and supported by CARB, California, under its existing and proposed GHG reduction policies, is on track to meet the 2020 reduction targets under AB 32 and could achieve the 2030 goals under SB 32. The research utilized a new, validated model known as the California LBNL GHG Analysis of Policies Spreadsheet (CALGAPS), which simulates GHG and criteria pollutant emissions in California from 2010 to 2050 in accordance to existing and future GHG-reducing policies. The CALGAPS model showed that GHG emissions through 2020 could range from 317 to 415 MTCO₂e per year (MTCO₂e/yr), “indicating that existing state policies will likely allow California to meet its target [of 2020 levels under AB 32].” CALGAPS also showed that by 2030, emissions could range from 211 to 428 MTCO₂e/yr, indicating that “even if all modeled policies are not implemented, reductions could be sufficient to reduce emissions 40% below the 1990 level [of SB 32].” CALGAPS analyzed emissions through 2050 even though it did not generally account for policies that might be put in place after 2030. Although the research indicated that the emissions would not meet the State’s 80% reduction goal by 2050, various combinations of policies could allow California’s cumulative emissions to remain very low through 2050.

Cap-and-Trade Program

The Scoping Plan identifies a Cap-and-Trade Program as one of the key strategies for California to reduce GHG emissions. According to CARB, a cap-and-trade program will help put California on the path to meet its goal of reducing GHG emissions to 1990 levels by the year 2020 and ultimately achieving an 80% reduction from 1990 levels by 2050. Under cap-and-trade, an overall limit on GHG emissions from capped sectors is established, and facilities subject to the cap will be able to trade permits to emit GHGs within the overall limit.

CARB adopted a California Cap-and-Trade Program pursuant to its authority under AB 32. See Title 17 of the CCR §§ 95800 to 96023). The Cap-and-Trade Program is designed to reduce GHG emissions from major sources (deemed “covered entities”) by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32’s emission-reduction mandate of returning to 1990 levels of emissions by 2020. The statewide cap for GHG emissions from the capped sectors (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and will decline over time, achieving GHG emission reductions throughout the program’s duration.

Covered entities that emit more than 25,000 MTCO₂e/yr must comply with the Cap-and-Trade Program. Triggering of the 25,000 MTCO₂e/yr “inclusion threshold” is measured against a subset

of emissions reported and verified under the California Regulation for the Mandatory Reporting of GHG Emissions (Mandatory Reporting Rule or “MRR”).

Under the Cap-and-Trade Program, CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities are allocated free allowances in whole or part (if eligible), and may buy allowances at auction, purchase allowances from others, or purchase offset credits. Each covered entity with a compliance obligation is required to surrender “compliance instruments” for each MTCO_{2e} of GHG they emit. There also are requirements to surrender compliance instruments covering 30% of the prior year’s compliance obligation by November of each year. For example, in November 2014, a covered entity was required to submit compliance instruments to cover 30% of its 2013 GHG emissions.

The Cap-and-Trade Program provides a firm cap, ensuring that the 2020 statewide emission limit will not be exceeded. An inherent feature of the Cap-and-Trade program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on an accumulative basis. As summarized by CARB in the First Update:

“The Cap-and-Trade Regulation gives companies the flexibility to trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities. Companies that emit more have to turn in more allowances or other compliance instruments. Companies that can cut their GHG emissions have to turn in fewer allowances. But as the cap declines, aggregate emissions must be reduced. In other words, a covered entity theoretically could increase its GHG emissions every year and still comply with the Cap-and-Trade Program if there is a reduction in GHG emissions from other covered entities. Such a focus on aggregate GHG emissions is considered appropriate because climate change is a global phenomenon, and the effects of GHG emissions are considered cumulative (CARB 2014).”

The Cap-and-Trade Program works with other direct regulatory measures and provides an economic incentive to reduce emissions. If California’s direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program will be responsible for relatively fewer emissions reductions. If California’s direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program will be responsible for relatively more emissions reductions. Thus, the Cap-and-Trade Program assures that California will meet its 2020 GHG emissions reduction mandate:

“The Cap-and-Trade Program establishes an overall limit on GHG emissions from most of the California economy—the “capped sectors.” Within the capped sectors, some of the reductions are being accomplished through direct regulations, such as improved building and appliance efficiency standards, the [Low Carbon Fuel Standard] LCFS, and the 33% [Renewables Portfolio Standard] RPS. Whatever additional reductions are needed to bring emissions within the cap is accomplished through price incentives posed by emissions allowance prices. Together, direct regulation and price incentives assure that emissions are brought down cost-effectively to the level of the overall cap. The Cap-and-Trade Regulation provides assurance that California’s 2020 limit will be met because the regulation sets a firm limit on 85% of California’s GHG emissions. In sum, the Cap-and-Trade Program will achieve aggregate, rather than site specific or project-level, GHG emissions reductions. Also, due to the regulatory architecture adopted by CARB in AB 32, the reductions attributed to the Cap-and-Trade Program can change over time depending on the State’s emissions forecasts and the effectiveness of direct regulatory measures.”

As of January 1, 2015, the Cap-and-Trade Program covered approximately 85% of California's GHG emissions. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program.

The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period. While the Cap-and-Trade Program technically covered fuel suppliers as early as 2012, they did not have a compliance obligation (i.e., they were not fully regulated) until 2015. The Cap-and-Trade Program covers the GHG emissions associated with the combustion of transportation fuels in California, whether refined in-state or imported. The point of regulation for transportation fuels is when they are "supplied" (i.e., delivered into commerce). Accordingly, as with stationary source GHG emissions and GHG emissions attributable to electricity use, virtually all, if not all, of GHG emissions from CEQA projects associated with VMT are covered by the Cap-and-Trade Program (California Air Resources Board (CARB)). In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. "Capped" strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the Program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. "Uncapped" strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional GHG emission reductions.¹

Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce GHGs through the use of Executive Orders. Although not regulatory, they set the tone for the state and guide the actions of state agencies.

Executive Order S-13-08

Executive Order S-13-08 states that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the Order, the 2009 California Climate Adaptation Strategy (CNRA 2009) was adopted, which is the "...first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

¹ On March 17, 2011, the San Francisco Superior Court issued a final decision in *Association of Irrigated Residents v. California Air Resources Board* (Case No. CPF-09-509562). While the Court upheld the validity of CARB Scoping Plan for the implementation of AB 32, the Court enjoined CARB from further rulemaking under AB 32 until CARB amends its CEQA environmental review of the Scoping Plan to address the flaws identified by the Court. On May 23, 2011, CARB filed an appeal. On June 24, 2011, the Court of Appeal granted CARB's petition staying the trial court's order pending consideration of the appeal. In the interest of informed decision-making, on June 13, 2011, CARB released the expanded alternatives analysis in a draft Supplement to the AB 32 Scoping Plan Functional Equivalent Document. CARB Board approved the Scoping Plan and the CEQA document on August 24, 2011.

Executive Order B-30-15

On April 29, 2015, Governor Edmund G. Brown Jr. issued an executive order to establish a California GHG reduction target of 40% below 1990 levels by 2030. The Governor's executive order aligns California's GHG reduction targets with those of leading international governments ahead of the United Nations Climate Change Conference in Paris late 2015. The Order sets a new interim statewide GHG emission reduction target to reduce GHG emissions to 40% below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80% below 1990 levels by 2050 and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of MMTCO_{2e}. The Order also requires the state's climate adaptation plan to be updated every three years, and for the State to continue its climate change research program, among other provisions. As with Executive Order S-3-05, this Order is not legally enforceable for local governments and the private sector. Legislation that would update AB 32 to make post 2020 targets and requirements a mandate is in process in the State Legislature.

Executive Order S-01-07 – LCFS

The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10% by 2020. In particular, the Executive Order established a LCFS and directed the Secretary for Environmental Protection to coordinate the actions of the CEC, CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by CEC on December 24, 2007) and was submitted to CARB for consideration as an "early action" item under AB 32. CARB adopted the LCFS on April 23, 2009.

The Board approved the LCFS regulation in 2009 and began implementation on January 1, 2011. CARB approved some amendments to the LCFS in December 2011, which were implemented on January 1, 2013. In September 2015, the Board approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural deficiencies in the way the original regulation was adopted. In 2018, the Board approved amendments to the regulation, which included strengthening and smoothing the carbon intensity benchmarks through 2030 in-line with California's 2030 GHG emission reduction target enacted through SB 32, adding new crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector.

Executive Order B-55-18 and SB 100

Executive Order B-55-18 and SB 100. SB 100 and Executive Order B-55-18 were signed by Governor Brown on September 10, 2018. Under the existing RPS, 25% of retail sales are required to be from renewable sources by December 31, 2016, 33% by December 31, 2020, 40% by December 31, 2024, 45% by December 31, 2027, and 50% by December 31, 2030. SB 100 raises California's RPS requirement to 50% renewable resources target by December 31, 2026, and to achieve a 60% target by December 31, 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours of those products sold to their retail end-use customers achieve 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030. In addition to targets under AB 32 and SB 32, Executive Order B-55-18 establishes a carbon neutrality goal for the state of California by 2045; and sets a goal to maintain net negative emissions thereafter. The Executive Order directs the California

Natural Resources Agency (CNRA), California Environmental Protection Agency (CalEPA), the Department of Food and Agriculture (CDFA), and CARB to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.

California Regulations and Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth.

Title 20 CCR

CCR, Title 20: Division 2, Chapter 4, Article 4, Sections 1601-1608: Appliance Efficiency Regulations regulates the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. Twenty-three categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the state and those designed and sold exclusively for use in recreational vehicles or other mobile equipment (CEC 2012).

Title 24 CCR

CCR Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on January 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2019 California Green Building Code Standards that became effective January 1, 2020.

Local jurisdictions are permitted to adopt more stringent requirements, as state law provides methods for local enhancements. CALGreen recognizes that many jurisdictions have developed existing construction waste and demolition ordinances and defers to them as the ruling guidance provided they establish a minimum 65% diversion requirement.

The code also provides exemptions for areas not served by construction waste and demolition recycling infrastructure. The State Building Code provides the minimum standard that buildings must meet in order to be certified for occupancy, which is generally enforced by the local building official.

Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The 2019 version of Title 24 was adopted by the California Energy Commission (CEC) and became effective on January 1, 2020.

The 2019 Title 24 standards will result in less energy use, thereby reducing GHG emissions associated with energy consumption in the South Coast Air Basin (SCAB) and across the State of California. For example, the 2019 Title 24 standards will require solar photovoltaic systems for

new homes, establish requirements for newly constructed healthcare facilities, encourage demand responsive technologies for residential buildings, and update indoor and outdoor lighting requirements for nonresidential buildings.

The CEC anticipates that single-family homes built with the 2019 standards will use approximately 7% less energy compared to the residential homes built under the 2016 standards. Additionally, after implementation of solar photovoltaic systems, homes built under the 2019 standards will use about 53% less energy than homes built under the 2016 standards. Nonresidential buildings (such as the Project) will use approximately 30% less energy due to lighting upgrade requirements.

Because the Project will be constructed after January 1, 2019, the 2019 CALGreen standards are applicable to the Project and require, among other items:

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106. 5.3.3 (5.106.5.3).
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, upright and glare ratings per Table 5.106.8 (5.106.8)
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
 - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
 - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).

- Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
- Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).
- Outdoor portable water uses in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient (MWELo), whichever is more stringent (5.304.1).
- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (5.303.1.1 and 5.303.1.2).
- Outdoor water uses in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

MWELo

The MWELo was required by AB 1881, the Water Conservation Act. The bill required local agencies to adopt a local landscape ordinance at least as effective in conserving water as the Model Ordinance by January 1, 2010. Reductions in water use of 20% consistent with (SBX-7-7) 2020 mandate are expected upon compliance with the ordinance. Governor Brown's Drought Executive Order of April 1, 2015 (Executive Order B-29-15) directed Department of Water Resources (DWR) to update the Ordinance through expedited regulation. The California Water Commission approved the revised Ordinance on July 15, 2015 effective December 15, 2015. New development projects that include landscape areas of 500 sf or more are subject to the Ordinance. The update requires:

- More efficient irrigation systems;
- Incentives for graywater usage;
- Improvements in on-site stormwater capture;
- Limiting the portion of landscapes that can be planted with high water use plants; and
- Reporting requirements for local agencies.

CARB Refrigerant Management Program

CARB adopted a regulation in 2009 to reduce refrigerant GHG emissions from stationary sources through refrigerant leak detection and monitoring, leak repair, system retirement and retrofitting, reporting and recordkeeping, and proper refrigerant cylinder use, sale, and disposal. The regulation is set forth in sections 95380 to 95398 of Title 17, CCR. The rules implementing the

regulation establish a limit on statewide GHG emissions from stationary facilities with refrigeration systems with more than 50 pounds of a high GWP refrigerant. The refrigerant management program is designed to (1) reduce emissions of high-GWP GHG refrigerants from leaky stationary, non-residential refrigeration equipment; (2) reduce emissions from the installation and servicing of refrigeration and air-conditioning appliances using high-GWP refrigerants; and (3) verify GHG emission reductions.

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.

Phase 1 and 2 Heavy-Duty Vehicle GHG Standards

CARB has adopted a new regulation for GHG emissions from HDTs and engines sold in California. It establishes GHG emission limits on truck and engine manufacturers and harmonizes with the EPA rule for new trucks and engines nationally. Existing heavy-duty vehicle regulations in California include engine criteria emission standards, tractor-trailer GHG requirements to implement SmartWay strategies (i.e., the Heavy-Duty Tractor-Trailer GHG Regulation), and in-use fleet retrofit requirements such as the Truck and Bus Regulation. In September 2011, the EPA adopted their new rule for HDTs and engines. The EPA rule has compliance requirements for new compression and spark ignition engines, as well as trucks from Class 2b through Class 8. Compliance requirements begin with model year 2014 with stringency levels increasing through model year 2018. The rule organizes truck compliance into three groupings, which include a) heavy-duty pickups and vans; b) vocational vehicles; and c) combination tractors. The EPA rule does not regulate trailers.

CARB staff has worked jointly with the EPA and the NHTSA on the next phase of federal GHG emission standards for medium-duty trucks (MDT) and HDT vehicles, called federal Phase 2. The federal Phase 2 standards were built on the improvements in engine and vehicle efficiency required by the Phase 1 emission standards and represent a significant opportunity to achieve further GHG reductions for 2018 and later model year HDT vehicles, including trailers. But as discussed above, the EPA and NHTSA have proposed to roll back GHG and fuel economy standards for cars and light-duty trucks, which suggests a similar rollback of Phase 2 standards for MDT and HDT vehicles may be pursued.

In February 2019, the OAL approved the Phase 2 Heavy-Duty Vehicle GHG Standards and became effective April 1, 2019. The Phase 2 GHG standards are needed to offset projected VMT growth and keep heavy-duty truck CO₂ emissions declining. The federal Phase 2 standards establish for the first time, federal emissions requirements for trailers hauled by heavy-duty tractors. The federal Phase 2 standards are more technology-forcing than the federal Phase 1 standards, requiring manufacturers to improve existing technologies or develop new technologies to meet the standards. The federal Phase 2 standards for tractors, vocational vehicles, and heavy-duty pick-up trucks and vans (PUVs) will be phased-in from 2021-2027, additionally for trailers, the standards are phased-in from 2018 (2020 in California) through 2027.

SB 97 and the CEQA Guidelines Update

Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states “(a) On or before July 1, 2009, the Office of Planning and Research (OPR) shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the OPR pursuant to subdivision (a).” Section 21097 was also added to the Public Resources Code. It provided CEQA protection until January 1, 2010 for transportation projects funded by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 or projects funded by the Disaster Preparedness and Flood Prevention Bond Act of 2006, in stating that the failure to analyze adequately the effects of GHGs would not violate CEQA.

On December 28, 2018, the Natural Resources Agency announced the OAL approved the amendments to the *CEQA Guidelines* for implementing the CEQA. The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing *CEQA Guidelines* to reference climate change.

Section 15064.4 was amended to state that in determining the significance of a project’s GHG emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project’s emissions to the effects of climate change. A project’s incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions. The agency’s analysis should consider a timeframe that is appropriate for the project. The agency’s analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes. Additionally, a lead agency may use a model or methodology to estimate GHG emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project’s incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use.

Regional

The project is within the SCAB, which is under the jurisdiction of the SCAQMD.

SCAQMD

SCAQMD is the agency responsible for air quality planning and regulation in the SCAB. The SCAQMD addresses the impacts to climate change of projects subject to SCAQMD permit as a lead agency if they are the only agency having discretionary approval for the project and acts as a responsible agency when a land use agency must also approve discretionary permits for the project. The SCAQMD acts as an expert commenting agency for impacts to air quality. This expertise carries over to GHG emissions, so the agency helps local land use agencies through the development of models and emission thresholds that can be used to address GHG emissions.

In 2008, SCAQMD formed a Working Group to identify GHG emissions thresholds for land use projects that could be used by local lead agencies in the SCAB. The Working Group developed several different options that are contained in the SCAQMD Draft Guidance Document – Interim CEQA GHG Significance Threshold, that could be applied by lead agencies. The working group

has not provided additional guidance since release of the interim guidance in 2008. The SCAQMD Board has not approved the thresholds; however, the Guidance Document provides substantial evidence supporting the approaches to significance of GHG emissions that can be considered by the lead agency in adopting its own threshold. The current interim thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a GHG reduction plan. If a project is consistent with a qualifying local GHG reduction plan, it does not have significant GHG emissions.
- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to the project's operational emissions. If a project's emissions are below one of the following screening thresholds, then the project is less than significant:
 - Residential and commercial land use: 3,000 MTCO₂e/yr
 - Industrial land use: 10,000 MTCO₂e/yr
 - Based on land use type: residential: 3,500 MTCO₂e/yr; commercial: 1,400 MTCO₂e/yr; or mixed use: 3,000 MTCO₂e/yr
- Tier 4 has the following options:
 - Option 1: Reduce Business-as-Usual (BAU) emissions by a certain percentage; this percentage is currently undefined.
 - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
 - Option 3: 2020 target for service populations (SP), which includes residents and employees: 4.8 MTCO₂e per SP per year for projects and 6.6 MTCO₂e per SP per year for plans;
 - Option 3, 2035 target: 3.0 MTCO₂e per SP per year for projects and 4.1 MTCO₂e per SP per year for plans
- Tier 5 involves mitigation offsets to achieve target significance threshold.

The SCAQMD's interim thresholds used the Executive Order S-3-05-year 2050 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO₂ concentrations at 450 ppm, thus stabilizing global climate.

SCAQMD only has authority over GHG emissions from development projects that include air quality permits. At this time, it is unknown if the project would include stationary sources of emissions subject to SCAQMD permits. Notwithstanding, if the Project requires a stationary permit, it would be subject to the applicable SCAQMD regulations.

SCAQMD Regulation XXVII, adopted in 2009 includes the following rules:

- Rule 2700 defines terms and post global warming potentials.
- Rule 2701, SoCal Climate Solutions Exchange, establishes a voluntary program to encourage, quantify, and certify voluntary, high quality certified GHG emission reductions in the SCAQMD.
- Rule 2702, GHG Reduction Program created a program to produce GHG emission reductions within the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

City of Highland General Plan Policies

The City of Highland General Plan offers the following Public Health, Safety, and Environmental Justice Element Goals, Policies and Programs regarding greenhouse gas (for the purposes of this analysis, air quality related goals and policies are included to encompass the topics of air quality and greenhouse gas):

Public Health, Safety, and Environmental Justice Element: Goal 1

Protect the health of community members by improving air quality.

Public Health, Safety, and Environmental Justice Element: Policy 1.1

Reduce air pollution from mobile sources.

Action 1.1a: Electric Vehicle Charging Stations. Promote the installation of electric vehicle charging stations at important destinations such as civic buildings, parks, and commercial hubs.

Action 1.1b: Fleet Management. Develop a fleet management program to increase the fuel efficiency and reduce emission of municipal vehicles.

Action 1.1c: Preferential Parking. Amend the zoning code to identify preferred locations for clean air vehicle parking required for new development.

Action 1.1d: Warehouse Standards. Include air quality and vegetation buffer standards for new warehouses uses and loading docks.

Public Health, Safety, and Environmental Justice Element: Policy 1.2

Reduce localized air pollution exposure near major roads.

Action 1.2a: Air Filters in Existing Buildings. Pursue grant funding to install air condition with HEPA filters in homes and schools within 1,000 feet of a major road.

Action 1.2b: Clean Air Development. Create a clean air checklist for new development of sensitive land uses within 1,000 feet of a major road. This checklist should include landscaping, ventilation systems, double-paned windows, setbacks, and barriers.

Public Health, Safety, and Environmental Justice Element: Goal 2

Promote a built environment that stays cool.

Public Health, Safety, and Environmental Justice Element: Policy 2.1

Promote a healthy urban forest to reduce air pollution and extreme heat.

Action 2.1a: Climate-Appropriate Trees. Develop a new street tree species palette that prioritizes trees based on having low water needs and adaptability to climate change and future environmental conditions.

Action 2.1b: Diverse Urban Forest. Maintain a healthy urban forest by ensuring a diversity of tree species.

Action 2.1c: Increase the Tree Canopy. Identify grant funding to develop a program to install additional street trees or provide canopy trees to residents for planting.

Action 2.1d: Street Tree Prioritization. Prioritize tree planting from approved street tree list based on the existing tree canopy and the population's vulnerability to extreme heat. Where possible, integrate shade trees with bike and pedestrian infrastructure.

Action 2.1e: Tree Planting in DACs. Prioritize tree planting in the DACs to reduce residents' vulnerability to extreme heat. Focus efforts on shade trees along sidewalks, at transit stops, schools, bike lanes, and within parks in the DACs.

Public Health, Safety, and Environmental Justice Element: Policy 2.2

Adopt policies and standards for the built environment that reduce urban heat island.

Action 2.2a: Green Development. Encourage cool or green roofs for new commercial buildings.

Action 2.2b: Cool Zones. Investigate the use of additional City facilities, such as recreation centers, to serve as cool zones.

Action 2.2c: Low-Income Weatherization Programs. Continue prioritize funding for efforts to repair and rehabilitate housing in disadvantaged communities, including programs and grants to weatherize houses for extreme heat and air pollution.

Public Health, Safety, and Environmental Justice Element: Goal 5

Improve the quality of the built and natural environments to reduce disparate health and environmental impacts.

Public Health, Safety, and Environmental Justice Element: Policy 5.1

Adopt land use regulations that protect residential and park uses from the impacts of industrial and roadway pollution.

Action 5.1a: Land Use Review. Conduct a review of existing Municipal Code to determine where existing legislation encourages or allows land uses and programs that are detrimental to the health of residents in DACs.

Action 5.1b: Monitor Industrial Areas. Establish a monitoring program to periodically evaluate and report the immediate and long-term health and environmental impacts of the proximity of residential and park uses to industrial areas in DACs.

Action 5.1c: Siting Industrial Uses. Disallow siting and construction of new industrial uses that could impact the health of residents in the DACs.

Public Health, Safety, and Environmental Justice Element: Policy 5.2

Remediate and prevent pollution arising from industrial and household sources.

Action 5.2a: Pollution Review. Conduct a review to determine where existing pollution sources are impacting residents in the DACs.

Action 5.2b: Hazards Cleanup. In conjunction with other local and regional agencies, ensure the cleanup of contaminated surface water, groundwater, and soils in affected DACs.

Action 5.2c: Green Streets. Prevent future groundwater pollution by implementing green street strategies to support a sustainable approach to stormwater, drainage, groundwater recharge, and landscaping, and incorporating green streets standard and guidelines in all streetscape improvements where feasible.

City of San Bernardino General Plan Policies

The City of San Bernardino General Plan offers the following Goals, Policies and Programs regarding greenhouse gas (for the purposes of this analysis, air quality related goals and policies are included to encompass the topics of air quality and greenhouse gas):

Land Use: Goal 2.2

Promote development that integrates with and minimizes impacts on surrounding land uses.

Land Use: Policy 2.2.7

Control the development of industrial and similar uses that use, store, produce or transport toxics, air emissions, and other pollutants. (LU-1)

Land Use: Goal 2.4

Enhance the quality of life and economic vitality in San Bernardino by strategic infill of new development and revitalization of existing development.

Land Use: Policy 2.4.6

Work with Omnitrans to explore initiatives that promote redevelopment near transit stops in order to encourage transit ridership, reduce vehicular trips, improve air quality, and improve traffic congestion:

- a. Concentrate mixed use development, retail, employment, entertainment, educational, and civic/government uses within walking distance of transit stops.
- b. Explore the use of incentives that can be awarded to projects that provide pedestrian amenities (wide sidewalks, public plazas, seating areas, etc...) and/or include desirable uses located within walking distance (1/2 mile) of transit stops. Incentives may include density bonuses, increases in non-residential floor area, reductions in parking requirements, and modified development standards.

Land Use: Goal 2.8

Protect the life and property of residents, businesses, and visitors to the City of San Bernardino from crime and the hazards of flood, fire, seismic risk, and liquefaction.

Land Use: Policy 2.8.4

Control the development of industrial and other uses that use, store, produce, or transport toxics, air emissions, and other pollutants. (LU-1)

Circulation: Goal 6.6

Promote a network of multi-modal transportation facilities that are safe, efficient, and connected to various points of the City and the region.

Circulation: Policy 6.6.9

Work with Omnitrans to create transit corridors, such as the one currently being explored on E Street linking CSUSB to Hospitality Lane, to increase transit ridership, reduce traffic congestion, and improve air quality.

Safety: Goal 10.1

Protect the environment, public health, safety, and welfare from hazardous wastes.

Safety: Policy 10.1.2

Ensure the protection of surface and groundwater quality, land resources, air quality, and environmentally sensitive areas through safe transportation of waste through the City and comprehensive planning of hazardous materials, wastes, and sites.

Natural Resources and Conservation: Goal 12.4

Properly manage designated areas for mineral extraction to meet the needs of the area.

Natural Resources and Conservation: Policy 12.4.8

Require that new, non-mining land uses adjacent to existing mining operations be designed to provide a buffer between the new development and the mining operations. The buffer distance shall be based on an evaluation of noise, aesthetics, drainage, operating conditions, biological resources, topography, lighting, traffic, operating hours, and air quality. (LU-1)

Natural Resources and Conservation: Goal 12.5

Promote air quality that is compatible with the health, well-being, and enjoyment of life.

Natural Resources and Conservation: Policy 12.5.1

Reduce the emission of pollutants including carbon monoxide, oxides of nitrogen, photochemical smog, and sulfate in accordance with South Coast Air Quality Management District (SCAQMD) standards.

Natural Resources and Conservation: Policy 12.5.2

Prohibit the development of land uses (e.g., heavy manufacturing) that will contribute significantly to air quality degradation, unless sufficient mitigation measures are undertaken according SCAQMD standards.

Natural Resources and Conservation: Policy 12.5.3

Require dust abatement measures during grading and construction operations. (LU-1)

Natural Resources and Conservation: Policy 12.5.4

Evaluate the air emissions of industrial land uses to ensure that they will not impact adjacent uses.

Natural Resources and Conservation: Policy 12.5.5

Purchase City vehicles that use energy efficient fuel and minimize air pollution. (NR-2)

Natural Resources and Conservation: Goal 12.6

Reduce the amount of vehicular emissions in San Bernardino.

Natural Resources and Conservation: Policy 12.6.1

Promote a pattern of land uses which locates residential uses in close proximity to employment and commercial services and provides, to the fullest extent possible, local job opportunities and commercial service to minimize vehicular travel and associated air emissions.

Natural Resources and Conservation: Policy 12.6.2

Disperse urban service centers (libraries, post offices, social services, etc.) throughout the City to minimize vehicle miles traveled and the concomitant dispersion of air pollutants.

Natural Resources and Conservation: Policy 12.6.3

Install streetscape improvements and other amenities to encourage pedestrian activity in key City areas and reduce vehicular travel and associated air emissions.

Natural Resources and Conservation: Policy 12.6.4

Facilitate the development of centralized parking lots and structures in commercial districts to promote walking between individual businesses in lieu of the use of automobiles. (LU-1)

Natural Resources and Conservation: Policy 12.6.5

Require qualifying development to implement or participate in transportation demand management programs, which provide incentives for carpooling, van pools, and the use of public transit and employ other trip reduction techniques (consistent with the Circulation Element and South Coast Air Quality Management Plan).

Natural Resources and Conservation: Policy 12.6.6

Continue to cooperate with Omnitrans and the Rapid Transit District to expand as necessary the comprehensive mass transit system for the City to reduce vehicular travel.

Natural Resources and Conservation: Policy 12.6.7

Promote the use of public transit and alternative travel modes to reduce air emissions.

Natural Resources and Conservation: Goal 12.7

Participate in regional initiatives and programs to improve the South Coast Basin's air quality.

Natural Resources and Conservation: Policy 12.7.1

Cooperate with the South Coast Air Quality Management District and incorporate pertinent local implementation provisions of the Air Quality Management Plan.

Natural Resources and Conservation: Policy 12.7.2

Work with the South Coast Air Quality Management District to establish controls and monitor uses in the City that could add to the air basin's degradation (e.g., auto repair, manufacturers).

Natural Resources and Conservation: Policy 12.7.3

Coordinate with SCAQMD to ensure that all elements of air quality plans regarding reduction of air pollutant emissions are being enforced.

Natural Resources and Conservation: Policy 12.7.4

Work with the other cities in the South Coast Air Basin to implement regional mechanisms to reduce air emissions and improve air quality.

Natural Resources and Conservation: Policy 12.7.5

Support legislation that promotes cleaner industry, clean fuel vehicles, and more efficient burning engines and fuels.

Natural Resources and Conservation: Policy 12.7.6

Encourage, publicly recognize, and reward innovative approaches to improve air quality.

Natural Resources and Conservation: Policy 12.7.7

Involve environmental groups, the business community, special interests, and the general public in the formulation and implementation of programs that actively reduce airborne pollutants.

4.9.3 Environmental Setting: Climate Change / Greenhouse Gas

4.9.3.1 Introduction to Global Climate Change

GCC is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. A majority of climate scientists believe that the climate shift taking place since the Industrial Revolution is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of GHGs in the earth's atmosphere, including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated gases. The majority of scientists believe that this increased rate of climate change is the result of GHGs resulting from human activity and industrialization over the past 200 years.

An individual project like the proposed Project evaluated in this GHGA cannot generate enough GHG emissions to affect a discernible change in global climate. However, the proposed Project may contribute to the potential for GCC by its incremental (cumulative) contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on GCC. Because these changes may have serious environmental consequences for the Earth, Section 4.9.6 will evaluate the potential for the proposed Project to have a significant effect upon the environment as a result of its potential contribution to the greenhouse effect.

4.9.3.2 Global Climate Change Defined

GCC refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO₂, N₂O, CH₄, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the earth's atmosphere, but prevent radioactive heat from escaping, thus warming the earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages.

Gases that trap heat in the atmosphere are often referred to as GHGs. GHGs are released into the atmosphere by both natural and anthropogenic (human) activities. Without the natural GHG effect, the earth's average temperature would be approximately 61 degrees Fahrenheit (°F) cooler than it is currently. The collective accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

4.9.3.3 Greenhouse Gases

GHGs and Health Effects

GHGs trap heat in the atmosphere, creating a heating effect that results in global warming and climate change. Many gases demonstrate these properties as discussed in Table 4.9-1. For the purposes of this analysis, emissions of CO₂, CH₄, and N₂O were evaluated because these gases are the primary contributors to GCC from development projects. Although there are other substances, such as fluorinated gases, that also contribute to GCC, these fluorinated gases were not evaluated as their sources are not well-defined and do not contain accepted emissions factors or methodology to accurately calculate the emission of these gases.

**Table 4.9-1
 GREENHOUSE GASES**

Greenhouse Gases	Description	Sources	Health Effects
Water	<p>Water is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. A climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change.</p> <p>As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG,</p>	<p>The main source of water vapor is evaporation from the oceans (approximately 85%). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.</p>	<p>There are no known direct health effects related to water vapor at this time. It should be noted however that when some pollutants react with water vapor, the reaction forms a transport mechanism for some of these pollutants to enter the human body through water vapor.</p>

Greenhouse Gases	Description	Sources	Health Effects
	<p>the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a “positive feedback loop.” The extent to which this positive feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the earth’s surface and heat it up).</p>		
CO ₂	<p>CO₂ is an odorless and colorless GHG. Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO₂ concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30%. Left unchecked, the concentration of CO₂ in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources.</p>	<p>CO₂ is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. CO₂ is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks.</p>	<p>Outdoor levels of CO₂ are not high enough to result in negative health effects. According to the National Institute for Occupational Safety and Health (NIOSH) high concentrations of CO₂ can result in health effects such as: headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. It should be noted that current concentrations of CO₂ in the earth’s atmosphere are estimated to be approximately 370</p>

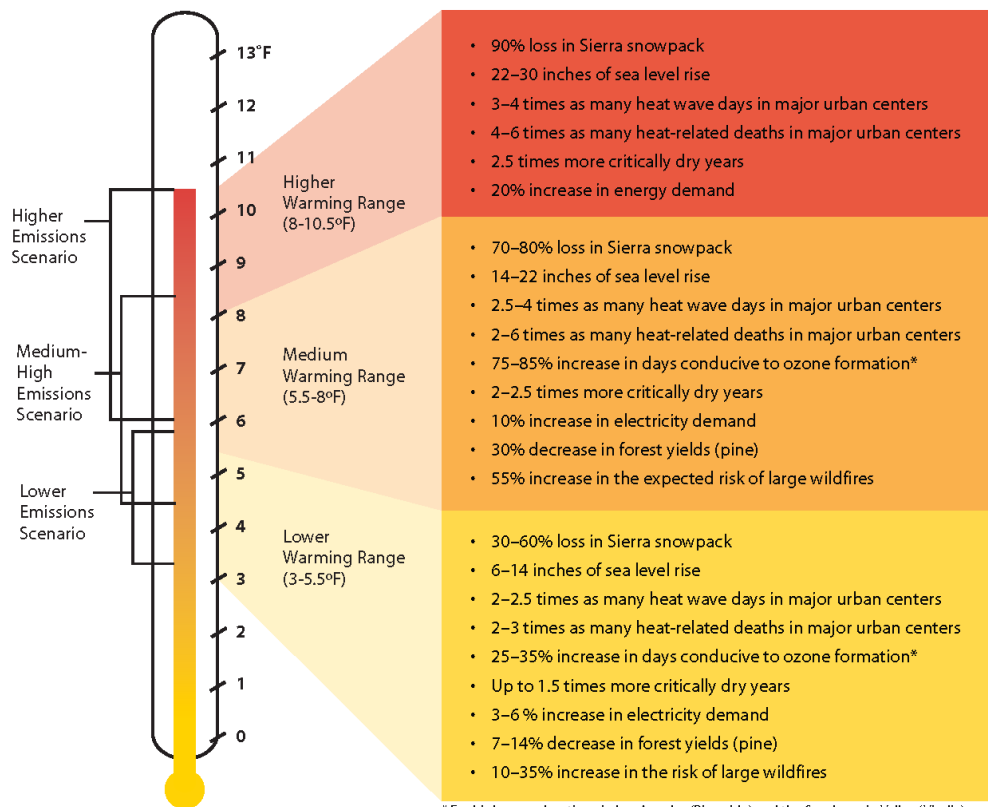
Greenhouse Gases	Description	Sources	Health Effects
			ppm, the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour workweek and short-term reference exposure levels of 30,000 ppm averaged over a 15 minute period (15).
CH ₄	CH ₄ is an extremely effective absorber of radiation, although its atmospheric concentration is less than CO ₂ and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs.	CH ₄ has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of CH ₄ . Other anthropogenic sources include fossil-fuel combustion and biomass burning.	CH ₄ is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Exposure to high levels of CH ₄ can cause asphyxiation, loss of consciousness, headache and dizziness, nausea and vomiting, weakness, loss of coordination, and an increased breathing rate.
N ₂ O	N ₂ O, also known as laughing gas, is a colorless GHG. Concentrations of N ₂ O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb).	N ₂ O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, i.e., in whipped cream bottles. It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. N ₂ O can be transported into the stratosphere, be deposited on the earth's surface, and be converted to other compounds by chemical reaction.	N ₂ O can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage).
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in CH ₄ or ethane (C ₂ H ₆) with chlorine and/or fluorine atoms. CFCs are	CFCs have no natural source but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global	In confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac

Greenhouse Gases	Description	Sources	Health Effects
	nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the earth's surface).	effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.	arrhythmia (heart frequency too high or too low) or asphyxiation.
HFCs	HFCs are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential (GWP). The HFCs with the largest measured atmospheric abundances are (in order), Fluoroform (HFC-23), 1,1,1,2-tetrafluoroethane (HFC-134a), and 1,1-difluoroethane (HFC-152a). Prior to 1990, the only significant emissions were of HFC-23. HFC-134a emissions are increasing due to its use as a refrigerant.	HFCs are manmade for applications such as automobile air conditioners and refrigerants.	No health effects are known to result from exposure to HFCs.
PFCs	PFCs have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above earth's surface, are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF ₄) and hexafluoroethane (C ₂ F ₆). The EPA estimates that concentrations of CF ₄ in the atmosphere are over 70 parts per trillion (ppt).	The two main sources of PFCs are primary aluminum production and semiconductor manufacture.	No health effects are known to result from exposure to PFCs.
SF ₆	SF ₆ is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900). The EPA indicates that concentrations in the	SF ₆ is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.	In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the

Greenhouse Gases	Description	Sources	Health Effects
	1990s were about 4 ppt.		oxygen needed for breathing.
Nitrogen Trifluoride (NF ₃)	NF ₃ is a colorless gas with a distinctly moldy odor. The World Resources Institute (WRI) indicates that NF ₃ has a 100-year GWP of 17,200.	NF ₃ is used in industrial processes and is produced in the manufacturing of semiconductors, Liquid Crystal Display (LCD) panels, types of solar panels, and chemical lasers.	Long-term or repeated exposure may affect the liver and kidneys and may cause fluorosis.

The potential health effects related directly to the emissions of CO₂, CH₄, and N₂O as they relate to development projects, such as the proposed Project, are still being debated in the scientific community. Their cumulative effects to GCC have the potential to cause adverse effects to human health. Increases in Earth’s ambient temperatures would result in more intense heat waves and more intense storms, causing more heat- and storm-related deaths. Scientists also purport that higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change may cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas. Figure 4.9-1 below presents the potential impacts of global warming.

FIGURE 4.9-1
SUMMARY OF PROJECTED GLOBAL WARMING IMPACT, 2070-2099 (AS COMPARED WITH 1961-1990)



* For high ozone locations in Los Angeles (Riverside) and the San Joaquin Valley (Visalia)

Source: Barbara H. Allen-Diaz. "Climate change affects us all." *University of California, Agriculture and Natural Resources*, 2009.

4.9.3.4 Global Warming Potential (GWP)

GHGs have varying GWP values. GWP of a GHG indicates the amount of warming a gas causes over a given period of time and represents the potential of a gas to trap heat in the atmosphere. CO₂ is utilized as the reference gas for GWP, and thus has a GWP of 1. CO₂ equivalent (CO₂e) is a term used for describing the difference GHGs in a common unit. CO₂e signifies the amount of CO₂ which would have the equivalent GWP. The atmospheric lifetime and GWP of selected GHGs are summarized at Table 4.9-2. As shown in the table below, GWP for the 2nd Assessment Report, the Intergovernmental Panel on Climate Change (IPCC)'s scientific and socio-economic assessment on climate change, range from 1 for CO₂ to 23,900 for SF₆ and GWP for the IPCC's 5th Assessment Report range from 1 for CO₂ to 23,500 for SF₆.

**Table 4.9-2
 GWP AND ATMOSPHERIC LIFETIME OF SELECT GHGS**

Gas	Atmospheric Lifetime (years)	GWP (100-year time horizon)	
		2 nd Assessment Report	5 th Assessment Report
CO ₂	See*	1	1
CH ₄	12 .4	21	28
N ₂ O	121	310	265
HFC-23	222	11,700	12,400
HFC-134a	13.4	1,300	1,300
HFC-152a	1.5	140	138
SF ₆	3,200	23,900	23,500

*As per Appendix 8.A. of IPCC's 5th Assessment Report, no single lifetime can be given.
 Source: Table 2.14 of the IPCC Fourth Assessment Report, 2007

4.9.3.5 GHG Emissions Inventories

Global

Worldwide anthropogenic GHG emissions are tracked by the IPCC for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Human GHG emissions data for Annex I nations are available through 2017. Based on the latest available data, the sum of these emissions totaled approximately 29,216,501 gigagrams (Gg) CO₂e² as summarized on Table 4.9-3.

United States

As noted in Table 4.9-3, the United States, as a single country, was the number two producer of GHG emissions in 2017.

² The global emissions are the sum of Annex I and non-Annex I countries, without counting Land-Use, Land-Use Change and Forestry (LULUCF). For countries without 2017 data, the United Nations' Framework Convention on Climate Change (UNFCCC) data for the most recent year were used UNFCCC, "Annex I Parties – GHG total without LULUCF," The most recent GHG emissions for China and India are from 2014.

**Table 4.9-3
 TOP GHG PRODUCING COUNTRIES AND THE EUROPEAN UNION**

Emitting Countries	GHG Emissions (Gg CO₂e)
China	11,911,710
United States	6,456,718
European Union (28-member countries)	4,323,163
India	3,079,810
Russian Federation	2,155,470
Japan	1,289,630
Total	29,216,501

¹ Used <http://unfccc.int> data for Annex I countries. Consulted the CAIT Climate Data Explorer in <https://www.climatewatchdata.org> site to reference Non-Annex I countries of China and India.

State of California

California has significantly slowed the rate of growth of GHG emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls, but is still a substantial contributor to the United States (U.S.) emissions inventory total. The California Air Resource Board (CARB) compiles GHG inventories for the State of California. Based upon the 2019 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2017 GHG emissions period, California emitted an average 424.1 million metric tons of CO₂e per year (MMTCO₂e/yr).

4.9.3.6 Effects of Climate Change in California

Public Health

Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35% under the lower warming range to 75 to 85% under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55% more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on the Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70% to 90%. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. Winter tourism could be adversely affected, under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing and snowboarding.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply source.

Agriculture

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25% of the water supply needed. Although higher CO₂ levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts.

In addition, continued GCC could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued GCC could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

GCC has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. In contrast, wildfires in northern California could increase by up to 90% due to decreased precipitation.

Moreover, continued GCC has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80% by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of GCC.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches.

4.9.4 Thresholds of Significance

The Project has been evaluated to determine if it will result in a significant GHG impact. The significance of these potential impacts is described in the following sections. The criteria used to determine the significance of potential Project-related GHG impacts are taken from the Initial Study Checklist in Appendix G of the State *CEQA Guidelines* (14 CCR of Regulations §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to GHG if it would:

- GHG-1 Generate GHG 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 GHGs?

4.9.5 Methodology

GHG emissions are generally forecast using emission forecast models. These models are discussed in the following text.

California Emissions Estimator Model (CalEEMod)

On October 17, 2017, the SCAQMD, in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the CalEEMod Version 2016.3.2. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources; and

quantify applicable air quality and GHG reductions achieved from mitigation measures. Accordingly, the latest version of CalEEMod has been used for this Project to determine GHG emissions. Output from the model runs for construction and operational activity are provided in Appendices 3.1 through 3.4. CalEEMod includes GHG emissions from the following source categories: construction, area, energy, mobile, waste, water.

EMFAC2017 Emission Rates

On August 19, 2019, the EPA approved the 2017 version of the Emissions FACtor model (EMFAC) web database for use in State Implementation Plan and transportation conformity analyses. EMFAC2017 is a mathematical model that was developed to calculate emission rates, fuel consumption, VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by CARB to project changes in future emissions from on-road mobile sources. This GHGA utilizes annual EMFAC2017 emission factors in order to derive vehicle emissions associated with Project operational activities.

Because the EMFAC2017 emission rates are associated with vehicle fuel types while CalEEMod vehicle emission factors are aggregated to include all fuel types for each individual vehicle class, the EMFAC2017 emission rates for different fuel types of a vehicle class are averaged by activity or by population and activity to derive CalEEMod emission factors. The equations applied to obtain CalEEMod vehicle emission factors for each emission type are detailed in CalEEMod User's Guide *Appendix A: Calculation Details for CalEEMod*.

Life-Cycle Analysis Not Required

A full life-cycle analysis (LCA) for construction and operational activity is not included in this analysis due to the lack of consensus guidance on LCA methodology at this time. Life-cycle analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the Project development, infrastructure and on-going operations) depends on emission factors or econometric factors that are not well established for all processes. At this time, an LCA would be extremely speculative and thus has not been prepared.

Additionally, the SCAQMD recommends analyzing direct and indirect project GHG emissions generated within California and not life-cycle emissions because the life-cycle effects from a project could occur outside of California, might not be very well understood or documented, and would be challenging to mitigate. Additionally, the science to calculate life cycle emissions is not yet established or well defined; therefore, SCAQMD has not recommended, and is not requiring, life-cycle emissions analysis.

4.9.6 Environmental Impacts

Construction Activities

Project construction activities would generate CO₂ and CH₄ emissions. The report *Air Quality Impact Analysis Report (AQIA)* contains detailed information regarding Project construction activities. As discussed in the AQIA, Construction related emissions are expected from the following construction activities:

- Demolition
- Site Preparation

- Grading
- Building Construction
- Paving
- Architectural Coating

Construction Duration

For purposes of analysis, construction is expected to commence in June 2022 and will last through December 2040. The construction schedule utilized in the analysis, shown in Table 4.9-4, represents a “worst-case” analysis scenario should construction occur any time after the respective dates since it is assumed that emission factors for construction activities decrease as time passes and the analysis year increases due to emission regulations becoming more stringent³. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines*.

Construction Equipment

The construction equipment fleet was based on CalEEMod defaults and were confirmed with the Project Applicant. A summary of construction equipment assumptions by phase is provided at Table 4.9-4.

Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 4.9-5 will operate up to a total of eight (8) hours per day, or more than two-thirds of the period during which construction activities are allowed pursuant to the code.

**Table 4.9-4
 CONSTRUCTION DURATION**

Phase Name	Start Date	End Date	Days
Demolition	06/01/2021	05/30/2022	260
Site Preparation	05/31/2022	12/12/2022	140
Grading	12/13/2022	07/22/2024	420
Building Construction	07/23/2024	12/31/2040	4,290
Paving	10/05/2038	12/31/2040	585
Architectural Coating	01/13/2032	12/31/2040	2,340

³ As shown in the CalEEMod User’s Guide Version 2016.3.2, Section 4.3 “OFFROAD Equipment” as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

**Table 4.9-5
 CONSTRUCTION EQUIPMENT ASSUMPTIONS**

Phase Name	Equipment ¹	Amount	Hours Per Day
Demolition	Concrete/Industrial Saws	2	8
	Excavators	5	8
	Rubber Tired Dozers	4	8
Site Preparation	Crawler Tractors	7	8
	Rubber Tired Dozers	5	8
Grading	Crawler Tractors	4	8
	Excavators	4	8
	Graders	2	8
	Rubber Tired Dozers	2	8
	Scrapers	4	8
Building Construction	Cranes	2	8
	Crawler Tractors	5	8
	Forklifts	5	8
	Generator Sets	2	8
	Welders	2	8
Paving	Pavers	4	8
	Paving Equipment	4	8
	Rollers	4	8
Architectural Coating	Air Compressors	2	8

¹ In order to account for fugitive dust emissions, Crawler Tractors were used in lieu of Tractors/Loaders/Backhoes.

Operational Activities

Operational activities associated with the Project will result in emissions of VOCs, NO_x, SO_x, CO, PM₁₀, and PM_{2.5}. Operational emissions are expected from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- On-Site Cargo Handling Equipment Emissions
- Water Supply, Treatment, and Distribution
- Solid Waste

Area Source Emissions

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod.

Energy Source Emissions

Combustion Emissions Associated with Natural Gas and Electricity

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SCAB, criteria pollutant emissions from offsite generation of electricity are generally excluded from the evaluation of significance and only natural gas use is considered. Based on information provided by the Project Applicant, the Project would not utilize natural gas and therefore no air quality emissions from energy sources would occur.

Title 24 Energy Efficiency Standards: The CalEEMod defaults for Title 24 – Electricity and Lighting Energy were reduced by 30% in order to reflect consistency with the 2019 Title 24 standard.

Mobile Source Emissions

The Project related operational air quality emissions derive primarily from vehicle trips generated by the Project, including employee trips to and from the site and truck trips associated with the proposed uses. Trip characteristics available from the *Traffic Impact Study for the Airport Gateway Specific Plan Project in the Cities of San Bernardino and Highland* (TIS) were utilized in this analysis.

Approach for Analysis of the Project

For purposes of analysis, CalEEMod default parameters were used to determine mobile-source emissions from all non-industrial land uses. In order to determine emissions from passenger car vehicles, the CalEEMod defaults were utilized for trip length and trip purpose for the proposed Mixed Use Business Park land uses.

For the proposed Mixed Use Business Park uses, it is important to note that although the TIS does not breakdown passenger cars by type, this analysis assumes that passenger cars include Light-Duty-Auto vehicles (LDA), Light-Duty-Trucks (LDT1⁴ & LDT2⁵), Medium-Duty-Vehicles (MDV), Motorcycles (MCY) vehicle types. In order to account for emissions generated by passenger cars, the following fleet mix was utilized in this analysis:

⁴ Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

⁵ Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. * 5,750 lbs.

**Table 4.9-6
 PASSENGER CAR FLEET MIX**

Land Use	Vehicle Type	%
High-Cube Transload & Short-Term Warehouse/ Warehousing	LDA	63.82
	LDT1	3.67
	LDT2	20.69
	MDV	11.23
	MCY	5.90

Note: The Project-specific passenger car fleet mix used in this analysis is based on a proportional split utilizing the default CalEEMod percentages assigned to LDA, LDT1, LDT2, and MDV vehicles types.

For purposes of analysis, CalEEMod default parameters were used to determine mobile-source emissions from all non-industrial land uses. In order to determine emissions from trucks for the proposed Mixed Use Business Park uses, the analysis incorporated the SCAQMD recommended truck trip length of 40 miles⁶ and an assumption of 100% primary trips for the proposed Mixed Use Business Park land uses.

In order to be consistent with the TIS, trucks are broken down by truck type. The truck fleet mix is estimated by rationing the trip rates for each truck type based on information provided in the TIS. Heavy trucks are broken down by truck type (or axle type) and are categorized as either Light-Heavy-Duty Trucks (LHDT1⁷ & LHDT2⁸)/2-axle, Medium-Heavy-Duty Trucks (MHDT)/3-axle, and Heavy-Heavy-Duty Trucks (HHDT)/4+-axle. In order to account for emissions generated by trucks, the following fleet mix was utilized in this analysis:

**Table 4.9-7
 TRUCK FLEET MIX**

Land Use	Vehicle Type	%
High-Cube Transload & Short-Term Warehouse	HHDT	100
High-Cube Fulfillment Center Warehouse	LHDT1	11.68
	LHDT2	5.26
	MHDT	22.69
	HHDT	60.37

Note: Project-specific truck fleet mix is based on the number of trips generated by each truck type (LHDT1, LHDT2, MHDT, and HHDT) relative to the total number of truck trips.

On-Site Cargo Handling Equipment Emissions

It is common for industrial warehouse buildings to require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment that receive and distribute containers. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard

⁶ The average trip length for heavy trucks were based on the SCAQMD documents for the implementation of the Facility-Based Mobile Source Measures (FBMSMs) adopted in the 2016 AQMP. SCAQMD's "Preliminary Warehouse Emission Calculations" cites 39.9-mile trip length for heavy-heavy truck. As a conservative measure, a trip length of 40 miles has been utilized for all trucks for the purpose of this analysis.

⁷ Vehicles under the LHDT1 category have a GVWR of 8,501 to 10,000 lbs.

⁸ Vehicles under the LHDT2 category have a GVWR of 10,001 to 14,000 lbs.

goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. The cargo handling equipment is assumed to have a hp range of approximately 175 hp to 200 hp. Based on the latest available information from SCAQMD, high-cube warehouse projects typically have 3.6 yard trucks per million sf of building space. For this particular Project, based on the maximum square footage of warehouse building space, on-site modeled operational equipment includes up to twenty-eight (28) 200 hp, compressed natural gas or gasoline-powered yard tractors operating at 4 hours a day for 365 days of the year.

Water Supply, Treatment and Distribution

Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water. CalEEMod default parameters were used to estimate GHG emissions associated with water supply, treatment and distribution for the Project scenario, which were adjusted manually to reflect compliance with Title 24 standards.

Solid Waste

Industrial land uses will result in the generation and disposal of solid waste. A large percentage of this waste will be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the Project were calculated by CalEEMod defaults modified to reflect Title 24 standards.

4.9.6.2 Potential Impacts

GHG-1 Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Existing Conditions

As previously stated, the existing uses within the Specific Plan area include single-family and multi-family residential, small-lot commercial, educational facilities, and industrial uses. Vacant parcels make up approximately 209 acres of the Specific Plan area. The estimated GHG emissions from the existing development are summarized on Table 4.9-8.

The annual GHG emissions associated with the operation of the existing conditions are estimated to be 29,037.19 MTCO₂e/yr as summarized in Table 4.9-8.

Proposed Project

The annual GHG emissions associated with the operation of the proposed Project are summarized in Table 4.9-9. It should be noted that the existing development emissions (previously presented in Table 4.9-8) were subtracted from the Project GHG emissions to determine the new emissions from the proposed Project. As shown in Table 4.9-9, construction and operation of the Project would generate a net total of approximately 69,512.06 MTCO₂e/yr.

**Table 4.9-8
 EXISTING GHG EMISSIONS**

Emission Source	Emissions (MT/yr)			
	CO ₂	CH ₄	N ₂ O	Total CO ₂ e
Area Source	310.54	0.32	0.01	320.47
Energy Source	7,285.68	0.25	0.08	7,317.19
Mobile Sources	19,091.54	1.12	0.00	19,119.53
Waste	377.26	22.30	0.00	934.64
Water Usage	1,121.33	6.92	0.17	1,345.36
Total MTCO₂e (All Sources)	29,037.19			

Source: CalEEMod output, See Appendix 3.5 of the GHGA for detailed model outputs.

**Table 4.9-9
 PROJECT GHG EMISSIONS**

Emission Source	Emissions (MT/yr)			
	CO ₂	CH ₄	N ₂ O	Total CO ₂ e
Annual construction-related emissions amortized over 30 years	14,953.43	0.60	0.00	14,968.55
Area Source	0.93	0.00	0.00	0.99
Energy Source	6,838.05	0.22	0.09	6,870.12
Mobile Source	61,017.79	3.36	0.00	61,101.72
On-Site Equipment	1,719.18	0.05	0.00	1,720.31
Waste	1,866.58	110.31	0.00	4,624.38
Water Usage	6,254.53	93.49	2.25	9,263.18
Total CO₂e (All Sources)	98,549.25			
<i>Existing Emissions</i>	29,037.19			
Net Emissions (Project – Existing)	69,512.06			

Source: CalEEMod output, See Appendices 3.1 through 3.3 of the GHGA for detailed model outputs.

The Project would be required to comply with regulations imposed by the State of California and the South Coast Air Quality Management District (SCAQMD) aimed at the reduction of air pollutant emissions. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of GHG emissions include:

- Global Warming Solutions Act of 2006 (Assembly Bill (AB) 32).
- Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (Senate Bill (SB) 375).
- Pavley Fuel Efficiency Standards (AB 1493). Establishes fuel efficiency ratings for new vehicles.
- California Building Code (Title 24 California Code of Regulations (CCR)). Establishes energy efficiency requirements for new construction.
- Appliance Energy Efficiency Standards (Title 20 CCR). Establishes energy efficiency requirements for appliances.
- Low Carbon Fuel Standard (LCFS). Requires carbon content of fuel sold in California to be 10 percent (%) less by 2020.

- California Water Conservation in Landscaping Act of 2006 (AB 1881). Requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010 to ensure efficient landscapes in new development and reduced water waste in existing landscapes.
- Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions.
- Renewable Portfolio Standards (SB 1078 – also referred to as RPS). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20% by 2010 and 33% by 2020.
- California Global Warming Solutions Act of 2006 (SB 32). Requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15.

Promulgated regulations that will affect the Project's emissions are accounted for in the Project's GHG calculations. In particular, AB 1493, LCFS, and RPS, are accounted for in the Project's emission calculations.

Though the project will be required to comply with regulations imposed by the State of California and the SCAQMD aimed at the reduction of air pollutant emissions, as described above, the proposed project would generate emissions beyond the SCAQMD 10,000 MTCO₂e/yr threshold, and as such, will have a cumulatively significant and unavoidable adverse impact under Greenhouse Gas.

Mitigation Measures

Mitigation measures designed to reduce GHG emissions from construction and operation of future development under the AGSP are identified in Subchapter 4.4, Air Quality, of this Focused DEIR (mitigation measures [MMs] **AQ-1** through **AQ-44**), and through MM **GHG-1** and **GHG-2** below. Neither the IVDA, future developers, nor the Cities of San Bernardino or Highland can substantively or materially affect reductions in project-related mobile-source emissions beyond the specific plan requirements, regulatory requirements, and mitigation measures identified herein. However, one additional mitigation measure shall be implemented to reduce contribution to global climate change through a reduction in operational energy emissions.

GHG-1 *Future AGSP Developments shall be required to construct future buildings to be solar or other clean energy technology compatible, and clean energy ready. Each AGSP structure greater than 50,000 SF shall ensure each structure provides either a solar photovoltaic panel system or other clean energy systems within 2 years of commencing operations where feasible.*

GHG-2 *Future AGSP Developments with more than 10 employees or more than 10 company vehicles shall submit a GHG Emissions Reduction Plan (ERP) to the pertinent City for review and approval. The objective of the plan shall be to reduce GHG emissions by a minimum of 10%. The GHG ERP shall consider and identify GHG emission reductions from the following emission source categories as part of the ERP:*

- *Energy source reduction from measure GHG-1*
- *Implementation of Ride Sharing Program (Mobile Source)*
- *Provision of electric vehicle charging stations (Level 2 or Level 3, Mobile Source)*
- *Maintenance of an onsite bicycle sharing program (Mobile Source)*

- **Establishment and support of a mass transit use program (including adjusting hours of operations to complement local mass transit operations, Mobile Source)**
- **Provision of secure bicycle parking facilities (Mobile Source)**
- **Acquisition of a minimum of one company electric vehicle or low NOx emission CNG vehicle, including truck(s) (Mobile source)**
- **Install low demand water consumption systems, internally and outdoors (Water Usage source)**
- **Implement a solid waste management system that achieves greater than 50% recycling (Waste Management Source)**
- **Utilize construction equipment that can reduce GHG and NOx emissions a minimum of 5% (Construction Emissions Source)**

The above measures would minimize operational-source related contributions to significant GHG emissions to the greatest extent feasible for a project of this type. However, ultimately the above measures, in conjunction with MMs **AQ-1** through **AQ-44** would not fully reduce significant construction or operational-source GHG emissions to a less than significant impact level.

GHG-1 Impact Summary – Would the project generate direct or indirect GHG emissions that would result in a significant impact on the environment?

A numerical threshold for determining the significance of GHG emissions in the SCAB has not been established by the SCAQMD for Projects where it is not the lead agency. As an interim threshold based on guidance provided in the CAPCOA *CEQA and Climate Change* handbook, the City has opted to use a non-zero threshold approach based on Approach 2 of the handbook. Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD using this method for industrial type project is 10,000 MTCO₂e/yr for all projects.

As shown on Table 4.9-9, the Project has the potential to generate a total of approximately 69,512.06 MTCO₂e/yr at build-out. As such, the Project would exceed the SCAQMD's recommended numeric threshold of 10,000 MTCO₂e/yr. Thus, the Project has the potential to result in a cumulatively considerable impact with respect to GHG emissions.

No feasible mitigation measures exist that would reduce these emissions to levels that are less-than-significant. Project operational-source GHG emissions exceedances of applicable SCAQMD numeric threshold are therefore considered significant and unavoidable. Moreover, more than 70 percent of all operational-source emissions (by weight) would be generated by project mobile sources (traffic). Neither future project applicants nor the Lead Agency can substantively or materially affect reductions in project mobile-source emissions beyond the regulatory requirements and MMs **GHG-1** and **GHG-2**. As such, project operational-source GHG emissions exceedances of applicable SCAQMD numeric thresholds would be significant and cumulatively considerable impacts in regards to GHG under impact category 1.

Level of Significance: Significant and Unavoidable With Mitigation Incorporated

GHG-2 Impact Summary – Would the project have the potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

As shown below, the Project would be consistent with the County of San Bernardino GHG Plan. Additionally, the Project’s consistency with AB 32 and SB 32 are discussed below.

SB 32/2017 Scoping Plan Consistency

The 2017 Scoping Plan Update reflects the 2030 target of a 40% reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Table 4.9-10 summarizes the project’s consistency with the 2017 Scoping Plan. As summarized, the project will not conflict with any of the provisions of the Scoping Plan and in fact supports seven of the action categories.

**Table 4.9-10
 2017 SCOPING PLAN CONSISTENCY SUMMARY**

Action	Responsible Parties	Consistency
Implement SB 350 by 2030		
Increase the Renewables Portfolio Standard to 50 percent of retail sales by 2030 and ensure grid reliability.	CPUC, CEC, CARB	Consistent. The Project would use energy from Southern California Edison (SCE). SCE has committed to diversify its portfolio of energy sources by increasing energy from wind and solar sources. The Project would not interfere with or obstruct SCE energy source diversification efforts.
Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.		Consistent. The Project would be designed and constructed to implement the energy efficiency measures for new commercial developments and would include several measures designed to reduce energy consumption. The Project would not interfere with or obstruct policies or strategies to establish annual targets for statewide energy efficiency savings and demand reduction.
Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in Integrated Resource Planning (IRP) to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly- owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs.		Consistent. The Project would be designed and constructed to implement energy efficiency measures acting to reduce electricity consumption. The Project includes energy efficient lighting and fixtures that meet the current Title 24 Standards. Further, the Project proposes contemporary industrial facilities that would incorporate energy efficient boilers, heaters, and air conditioning systems.
Implement Mobile Source Strategy (Cleaner Technology and Fuels)		
At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025.	CARB, California State Transportation Agency (CalSTA), Strategic Growth Council (SGC), California Department of Transportation (Caltrans), CEC, OPR, Local Agencies	Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty electric vehicle 2025 targets.
At least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty electric vehicle 2030 targets.
Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts

Action	Responsible Parties	Consistency
		to further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.
Medium- and Heavy-Duty GHG Phase 2.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to implement Medium- and Heavy-Duty GHG Phase 2.
Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NO _x standard.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts improve transit-source emissions.
Last Mile Delivery: New regulation that would result in the use of low NO _x or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5 percent of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025 and remaining flat through 2030.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to improve last mile delivery emissions.
Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document “Potential VMT Reduction Strategies for Discussion.”		Consistent. The Project implements Transportation Demand Measures (TDMs) that would act to reduce VMT.
Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).	CARB	Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).
By 2019, adjust performance measures used to select and design transportation facilities		
Harmonize project performance with emissions reductions and increase competitiveness of transit and active transportation modes (e.g., via guideline documents, funding programs, project selection, etc.).	CalSTA, SGC, OPR, CARB, Governor’s Office of Business and Economic Development (GO-Biz), California Infrastructure and Economic Development Bank (IBank), Department of Finance (DOF),	Consistent. The Project would not obstruct or interfere with agency efforts to harmonize transportation facility project performance with emissions reductions and increase competitiveness of transit and active transportation modes.

Action	Responsible Parties	Consistency
	California Transportation Commission (CTC), Caltrans	
By 2019, develop pricing policies to support low-GHG transportation (e.g., low-emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).	CalSTA, Caltrans, CTC, OPR, SGC, CARB	Consistent. The Project would not obstruct or interfere with agency efforts to develop pricing policies to support low-GHG transportation.
Implement California Sustainable Freight Action Plan		
Improve freight system efficiency.	CalSTA, CalEPA, CNRA, CARB, Caltrans, CEC, GO-Biz	Consistent. This measure would apply to all trucks accessing the Project site, this may include existing trucks or new trucks that are part of the statewide goods movement sector. The Project would not obstruct or interfere with agency efforts to Improve freight system efficiency.
Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.	Caltrans, CEC, GO-Biz	Consistent. The Project would not obstruct or interfere with agency efforts to deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.
Adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18 percent.	CARB	Consistent. When adopted, this measure would apply to all fuel purchased and used by the Project in the state. The Project would not obstruct or interfere with agency efforts to adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18 percent.
Implement the Short-Lived Climate Pollutant Strategy (SLPS) by 2030		
40 percent reduction in methane and hydrofluorocarbon emissions below 2013 levels.	CARB, CalRecycle, CDFA, SWRCB, Local Air Districts	Consistent. The Project would be required to comply with this measure and reduce any Project-source SLPS emissions accordingly. The Project would not obstruct or interfere agency efforts to reduce SLPS emissions.
50 percent reduction in black carbon emissions below 2013 levels.		
By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.	CARB, CalRecycle, CDFA, SWRCB, Local Air Districts	Consistent. The Project would implement waste reduction and recycling measures consistent with State and City requirements. The Project would not obstruct or interfere agency efforts to support organic waste landfill reduction goals in the SLCP and SB 1383.
Implement the post-2020 Cap-and-Trade Program with declining annual caps.	CARB	Consistent. The Project would be required to comply with any applicable Cap-and-Trade Program provisions. The Project would not obstruct or interfere agency efforts to implement the post-2020 Cap-and-Trade Program.

Action	Responsible Parties	Consistency
By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink		
Protect land from conversion through conservation easements and other incentives.	CNRA, Departments Within CDFA, CalEPA, CARB	Consistent. The Project site is designated for Mixed Use Business Park uses. The Project does not propose land conversion. The Project would not obstruct or interfere agency efforts to protect land from conversion through conservation easements and other incentives.
Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity		Consistent. The Project site is vacant disturbed property and does not comprise an area that would effectively provide for carbon sequestration. The Project would not obstruct or interfere agency efforts to increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity.
Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments		Consistent. Where appropriate, Project designs will incorporate wood or wood products. The Project would not obstruct or interfere agency efforts to encourage use of wood and agricultural products to increase the amount of carbon stored in the natural and built environments.
Establish scenario projections to serve as the foundation for the Implementation Plan		Consistent. The Project would not obstruct or interfere agency efforts to establish scenario projections to serve as the foundation for the Implementation Plan.
Establish a carbon accounting framework for natural and working lands as described in SB 859 by 2018	CARB	Consistent. The Project would not obstruct or interfere agency efforts to establish a carbon accounting framework for natural and working lands as described in SB 859 by 2018.
Implement Forest Carbon Plan	CNRA, California Department of Forestry and Fire Protection (CAL FIRE), CalEPA and Departments Within	Consistent. The Project would not obstruct or interfere agency efforts to implement the Forest Carbon Plan.
Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.	State Agencies & Local Agencies	Consistent. The Project would not obstruct or interfere agency efforts to identify and expand funding and financing mechanisms to support GHG reductions across all sectors.

Source: California Air Resources Board, California's 2017 Climate Change Scoping Plan, November 2017 and CARB, Climate Change Scoping Plan, December 2008.

As shown above, the Project would not conflict with any of the *2017 Scoping Plan* elements as any regulations adopted would apply directly or indirectly to the Project. Further, recent studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40% below 1990 levels by 2030. Although the Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing

the emissions of GHGs, since the project operational-source GHG emissions exceeds the applicable SCAQMD numeric thresholds, implementation of the AGSP would result in significant and unavoidable impacts in regards to GHG impact 2.

Mitigation Measures

Mitigation measures **GHG-1** and **GHG-2**, as well as MMs **AQ-1** through **AQ-44**, would minimize GHG impacts to the greatest extent feasible, but as stated above, since the project operational-source GHG emissions exceedances of applicable SCAQMD numeric thresholds, implementation of the AGSP would result in significant and unavoidable impacts such that the proposed project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

Level of Significance: Significant Unavoidable Adverse Impact With Mitigation Incorporated

4.9.7 Cumulative Impact

In 2018, California greenhouse gas emissions totaled 425 million metric tons CO₂e^{9, 10}. The proposed project will generate approximately 69,512.06 metric tons CO₂e per year, or about 0.0163558% of this amount. However, the proposed Project may contribute to global climate change through an incremental contribution of greenhouse gases. Even with implementation of the recommended Air Quality and GHG mitigation measures identified herein or within Subchapter 4.4, Air Quality, of this EIR, implementation of the AGSP exceeds the SCAQMD recommended numeric threshold of 10,000 MTCO₂e/yr. Project GHG impacts are mitigated to the greatest extent feasible, but the project will still contribute to global climate change through a cumulatively considerable contribution of greenhouse gases. As such, the proposed project would result in a cumulatively considerable/significant adverse GHG Emission impact.

Level of Significance: Significant and Unavoidable

4.9.8 Unavoidable Adverse Impacts

The evaluation of GHG emissions presented in the preceding analysis demonstrates that construction and operation of individual projects under the proposed AGSP would generate GHG emissions that would have a significant impact on the environment. Implementation of MMs **GHG-1** and **GHG-2**, as well as MMs **AQ-1** through **AQ-44**, would minimize GHG impacts to the greatest extent feasible, but as stated above, since the project operational-source GHG emissions exceedances of applicable SCAQMD numeric thresholds, implementation of the AGSP would result in significant and unavoidable impacts. This is because, at the programmatic level at which the proposed AGSP is being analyzed, and with no specific projects envisioned under the AGSP at this time, no feasible mitigation measures exist that would reduce emissions to levels that are less-than-significant as Neither future project applicants nor the Lead Agency can substantively or materially affect reductions in project mobile-source emissions beyond the regulatory requirements and MMs **GHG-1** and **GHG-2**. Therefore, development associated with implementation of the proposed AGSP and cumulative development would result in unavoidable significant greenhouse gas impacts, even with the implementation of extensive mitigation measures addressed referenced above.

⁹ <https://www.arb.ca.gov/cc/inventory/data/data.htm>

¹⁰ https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2018/ghg_inventory_trends_00-18.pdf

4.10 HAZARDS AND HAZARDOUS MATERIALS

4.10.1 Introduction

This subchapter evaluates the potential environmental impacts to Hazards and Hazardous Materials from implementation of the Airport Gateway Specific Plan (AGSP), the proposed project. These issues will be discussed below as set in the following evaluation framework:

- 4.10.1 Introduction
- 4.10.2 Regulatory Setting
- 4.10.3 Existing Conditions
- 4.10.4 Thresholds of Significance
- 4.10.5 Methodology
- 4.10.6 Environmental Impacts
- 4.10.7 Mitigation Measures
- 4.10.8 Cumulative Impacts
- 4.10.9 Significant and Unavoidable Impacts

The General Plans and General Plan EIRs for the two cities have been used to characterize the existing Hazards and Hazardous Materials environment for the AGSP project area. Since no site-specific projects are considered in this environmental document, the Hazards and Hazardous Materials description is intended to summarize the general environmental conditions related to these topics. Site-specific environmental site assessment reports will be required by each City as individual projects are submitted for review and entitlement. In addition, the various data bases that list contaminated sites have been identified and queried to determine whether any locations within the project area have any known contaminated sites.

No comments regarding hazards and hazardous materials issues were raised at the public scoping meeting or as part of the Notice of Preparation.

4.10.2 Regulatory Setting

Federal, State and local laws, regulations, plans, or guidelines that are applicable to the proposed project are summarized below.

Federal

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (“EPA”) is the primary federal agency responsible for the implementation and enforcement of hazardous materials regulations. In most cases, enforcement of environmental laws and regulations established at the federal level is delegated to state and local environmental regulatory agencies. Federal regulations such as the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA), regulate the cleanup of known hazardous waste sites and compile lists of the sites investigated, or currently being investigated, for a release or potential release of a regulated hazardous substance under the CERCLA regulations. The National Priorities List (NPL) of Superfund Sites is the EPA’s database of hazardous waste sites currently identified and targeted for priority cleanup action under the Superfund program including Proposed NPL sites, Delisted NPL sites, and NPL Recovery sites. The NPL Liens database contains a list of filed notices of Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens

against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability.

The Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984 requires hazardous waste handlers (generators, transporters, treaters, storers, and disposers of hazardous waste) to provide information about their activities to state environmental agencies. These agencies pass the information to regional and national EPA offices.

Federal Emergency Management Agency

The Federal Emergency Management Agency (“FEMA”) is responsible for ensuring the establishment and development of policies and programs for emergency management at the federal, state, and local levels. This includes the development of a national capability to mitigate against, prepare for, respond to and recover from a full range of emergencies.

Department of Defense

United States Geological Survey (USGS) maintains the U.S. Department of Defense (“DOD”) database, which consists of federally owned or administered lands, administered by the DOD, that have an area equal to or greater than 640 acres of the United States, Puerto Rico and the US Virgin Islands.

Formerly Used Defense Sites

The U.S. Army Corps of Engineers maintains a database of locations of Formerly Used Defense Sites (“FUDS”) where the U.S. Army Corps of Engineers is actively working or will take necessary cleanup actions.

Occupational Safety and Health Administration

The Occupational Safety and Health Act of 1970 (OSH Act) requires employers to provide a safe and healthful workplace. The Occupational Safety and Health Administration (“OSHA”) sets and enforces standards for safe and healthful working conditions.

Department of Transportation

The U.S. Department of Transportation (“DOT”) includes the Pipeline and Hazardous Materials Safety Administration (“PHMSA”) which is responsible for regulating and ensuring the safe and secure movement of hazardous materials to industry and consumers by all modes of transportation, including pipelines. CFR Title 49 governs the manufacture of packaging and transport containers; packing and repacking, labeling, and the marking of hazardous material transport.

Department of Housing and Urban Development

Federal and state regulations govern the renovation and demolition of structures where materials containing lead and asbestos are present. The U.S. Department of Housing and Urban Development (“HUD”) provides guidelines regulating lead exposure. The Code of Federal Regulations Part 61, Subpart M regulates asbestos exposure.

State

California Department of Toxic Substances Control

The DTSC regulates hazardous waste in California primarily under the authority of the Federal Resource Conservation and Recovery Act (RCRA), and the California Health and Safety Code. Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal,

treatment, reductions, cleanup, and emergency planning. Under RCRA, DTSC has the authority to implement permitting, inspection, compliance, and corrective action programs to ensure that people who manage hazardous waste follow state and federal requirements. As such, the management of hazardous waste of the nature and quantities which, are regulated that is disposed of, treated, stored, or handled within the project area would be under regulation by the DTSC to ensure compliance with state and federal requirements pertaining to hazardous waste. California law provides the general framework for regulations of hazardous wastes by the Hazardous Waste Control Law (HWCL) passed in 1972. DTSC is the state's lead agency in implementing the HWCL. The HWCL provides for state regulation of existing hazardous waste facilities, which include "any structure, other appurtenances, and improvements on the land, used for treatment, transfer, storage, resource recovery, disposal, or recycling of hazardous waste," and requires permits for, and inspections of facilities involved in generation and/or treatment, storage and disposal of hazardous wastes.

California Environmental Protection Agency

The California EPA ("Cal/EPA") has broad jurisdiction over hazardous materials management in the State. Within Cal/EPA, the DTSC has primary regulatory responsibility for hazardous waste management and cleanup. Enforcement of regulations has been delegated to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the Hazardous Waste Control Law.

Hazardous Materials Management Plans

In January 1996, Cal/EPA adopted regulations implementing a "Unified Hazardous Waste and Hazardous Materials Management Regulatory Program" (Unified Program). The six program elements of the Unified Program are hazardous waste generators and hazardous waste on-site treatment, underground storage tanks, above-ground storage tanks, hazardous materials release response plans and inventories, risk management and prevention program, and Uniform Fire Code hazardous materials management plans and inventories. The program is implemented at the local level by a local agency-the Certified Unified Program Agency ("CUPA"). The CUPA is responsible for consolidating the administration of the six program elements within its jurisdiction. For the County of San Bernardino, CUPA jurisdiction is under the County Fire Department, Hazardous Materials Division. The law requires businesses that use hazardous materials to provide inventories of those materials to designated emergency response agencies, to illustrate on a diagram where the materials are stored on site, to prepare an emergency response plan, and to train employees to use the materials safely. Thus, if any uses proposed as part of the future AGSP project area site-specific projects would handle, store or use sufficient quantities of hazardous substances on-site that require regulation, they are required to comply with this law.

California Accidental Release Prevention Program

The California Accidental Release Prevention Program ("CalARP") (CCR Title 19, Division 2, Chapter 4.5) covers certain businesses that store or handle more than 500 pounds, 55 gallons, or 200 cubic feet of gas of specific regulated substances at their facilities. The CalARP program regulations became effective on January 1, 1997, and include the provisions of the Federal Accidental Release Prevention program (Title 40, CRF Part 68) with certain additions specific to the state pursuant to Article 2, Chapter 6.95, of the Health and Safety Code.

The list of regulated substances is found in Article 8, Section 2770.5 of the CalARP program regulations and include common cleaning products. However, as the minimum quantity that is regulated is 500 pounds or 55 gallons, it is unlikely that the onsite residences will use such quantities. Future light industrial or manufacturing sites are the most likely to fall under this regulatory oversight.

Worker and Workplace Hazardous Materials Safety

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of Occupational Safety and Health (Cal/OSHA) is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA obligates many businesses to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. The Hazard Communication Standard requires that workers be informed of the hazards associated with the materials they handle. For example, manufacturers are to appropriately label containers, Material Safety Data Sheets are to be available in the workplace, and companies are to properly train employees to manage hazardous materials or wastes.

Hazardous Materials Transportation

The California Highway Patrol (“CHP”) and Caltrans are the enforcement agencies for hazardous materials transportation regulations. Transporters of hazardous materials and waste are responsible for complying with all applicable packaging, labeling, and shipping regulations. The Office of Emergency Services (OES) also provides emergency response services involving hazardous materials incidents.

Investigation and Cleanup of Contaminated Sites

The oversight of hazardous materials release site often involves several different agencies that may have overlapping authority and jurisdiction. The DTSC, local CUPA and RWQCB are the three primary agencies responsible for issues pertaining to hazardous materials release sites. Air quality issues related to remediation and construction at contaminated sites are also subject to federal and state laws and regulations that are administered at the local level, or in the case of the SCAQMD, the regional level.

Investigation and remediation activities that would involve potential disturbance or release of hazardous materials must comply with applicable federal, state, and local hazardous materials laws and regulations. DTSC has developed standards for the investigation of sites where hazardous materials contamination has been identified or could exist based on current or past uses.

Local

City Fire Regulations

Fire codes are important to all building construction. The project area is not located within an area identified as a moderate, high or very high fire hazard severity, as shown on Figures 4.10-1 and 4.10-2, Fire Hazard Areas of the Highland area and the San Bernardino area, respectively. According to the text of the two City General Plans, the urban, low-lying areas in both cities are classified as having no Wildfire Hazard.

The two cities have adopted the California Building Standards Code, which includes the most current version of the California Fire Code and the California Building Code (CBC). The Uniform Fire Code established by the International Fire Code Institute and the Uniform Building Code (UBC) established by the International Conference of Building Officials, both prescribe performance characteristics and materials to be used to achieve acceptable levels of fire protection. The City Fire Departments are authorized and directed to enforce the provisions of the California Fire Code throughout both cities. The California Fire Code contains standards for access to a site, building design, water supply, storage of hazardous materials and brush clearance. The California Building Code prescribes performance characteristics and materials to

be used to achieve acceptable levels of fire protection based on building use and occupancy. The construction requirements are a function of building size, purpose, type, materials, location, proximity to other structures, and the type of fire suppression systems installed.

For purposes of this DEIR, whatever fire or building code is current and adopted by each City at the time of future site-specific development for the particular issue/regulation being referenced in the DEIR shall be the applicable code.

The City Fire Departments (The City Fire Marshal in Highland and County Fire Department in San Bernardino) charge project applicants deposit-based fees, established in City ordinances, for the review and related processing of all planning case applications by the conducted by the Departments. In addition, development impact fees are collected in each City to help offset the cost of providing new fire protection infrastructure.

City of Highland General Plan

Hazardous Materials and Waste

The City General Plan states: *San Bernardino County has a County Hazardous Waste Management Plan (HWMP). As further required by the State, all cities within the County must also adopt a City HWMP. Ordinance No. 171, in accordance with state law and the HWMP, regulates hazardous materials management in the City and requires businesses that use hazardous materials or generate hazardous waste to include an inventory of amounts and types of hazardous materials, practices for management and reductions, and emergency response procedures.*

City of Highland General Plan goals and policies regarding hazardous materials/waste management include the following:

Public Health, Safety, and Environmental Justice Element: Goal 3

Minimize risks, such as loss of life, injury, property damage, and natural resource destruction from natural and human-caused hazards.

Public Health, Safety, and Environmental Justice Element: Policy 3.3

Implement programs and standards to mitigate wildfire risk in high wildfire hazard severity zones.

Action 3.3a: New Development. All development shall be required to meet the minimum standards for adequate fire protection. The most restrictive law, regulation, or ordinance regarding fire safety applicable to development in Highland will take precedence, including compliance with the most current SRA Fire Safe Regulations and Fire Hazard Reduction Around Buildings and Structures Regulations if applicable. All perimeter development within the Very High Fire Hazard Severity Zone, adjacent to open space, shall construct perimeter fire roads in compliance with City policy.

Action 3.3b: New Residential Development in Areas Designated Very High Fire Hazard Severity Zone (VHFHSZ). Residential development within areas designated as VHFHSZs should be avoided or risks mitigated through compliance with applicable codes and standards, including compliance with the most current SRA Fire Safe Regulations and Fire Hazard Reduction around Buildings and Structures Regulations. If residential development occurs within VHFHSZ, a Fire Protection Plan that describes

Action 3.3c: Home Improvements for Vulnerable Populations. For qualifying households, promote the use of local, county, and state rehabilitation programs and defensible space assistance, and provide information to vulnerable residents to assist with efforts to improve fire safety.

Action 3.3d: Wildfire Retrofits. Encourage structural hardening retrofits for existing structures in the VHFHSZ, consistent with the current standards.

Action 3.3e: New and Existing Public Facilities. The construction of new public facilities should occur outside of areas designated VHFHSZ when feasible. Existing public facilities in the High Fire Hazard Area shall be retrofitted to be consistent with the current standards.

Action 3.3f: Maintain Emergency Evacuation Routes. Ensure that the entity charged with maintenance of the road complies with the requirements of the State Fire Code and San Bernardino Consolidated Fire Codes regarding street width, surface, grade, radius, turnarounds, turnouts, bridge construction, and lengths of fire apparatus access roads. All requirements and any deviations will be at the discretion of the Fire Code Official. Enforce these standards on new development in VHFHSZ through development review, and on existing development through code enforcement. Work with the City's Geographic Information Systems (GIS) mapping services to identify any residential areas that do not have at least two emergency evacuation routes or are otherwise inadequate due to access or timeliness of evacuation. Develop an evacuation route improvement plan upon identification of evacuation route inadequacies.

Action 3.3g: Recover from Large Fires Safely. Perform an evaluation of fire-related development standards should a major wildfire require large portions of the City be rebuilt to ensure that redevelopment standards are as fire-safe as reasonably possible.

Action 3.3h: Adequate Peakload Water Supply will be Supported. The City will coordinate with the East Valley Water District to maintain long-term integrity of peakload water supply for structural fire-fighting and wildland fire-fighting and ensure new construction is serviceable by water supply.

Public Health, Safety, and Environmental Justice Element: Policy 3.4

Ensure that public facilities and infrastructure have adequate capacity to respond to wildfires and other relevant hazard events.

Action 3.4a: Performance Standards. Apply fire unit deployment performance measures with future planning of fire stations.

Action 3.4b: Emergency Equipment. Consider the long-term maintenance needs of emergency equipment and facilities when developing the annual budget.

Action 3.4c: Storm Drain Capacity. Continue to ensure that existing and new storm drain and street capacities are adequate to manage a 100-year flood event.

Action 3.4d: New Public Facilities. The construction of new public facilities should occur outside of areas designated VHFHSZ when feasible. Existing public facilities in the VHFHSZ shall be retrofitted to be consistent with the current standards.

Public Health, Safety, and Environmental Justice Element: Policy 3.7

Limit the potential hazards from the transportation and disposal of hazardous waste.

Action 3.7a: Hazardous Materials Storage and Transport. Continue to require businesses that store or transport hazardous materials to prepare a Hazardous Materials Business Plan for review and approval by the Lead Environmental Agency.

Action 3.7b: Hazardous Materials Studies. When appropriate, require new development to prepare a hazardous materials inventory and/or prepare Phase I or Phase II hazardous materials studies, including any required cleanup measures.

Action 3.7c: Household Education. Educate the public on household hazardous wastes and the proper methods of disposal.

Public Health, Safety, and Environmental Justice Element: Goal 4

Maintain adequate emergency preparedness and response capabilities.

Public Health, Safety, and Environmental Justice Element: Policy 4.1

Create culturally appropriate hazard preparation and education.

Action 4.1a: Emergency Alerts for Air Pollution. Use the emergency alert systems and other standard City communications to alert the public when local air quality reaches "Very Unhealthy" levels.

Action 4.1b: Neighborhood-Based Preparedness. Convene and regularly train neighborhood-based emergency response teams (e.g., CERT) and explore incorporating climate change response and recovery. Ensure CERT recruiting includes a diverse set of community members and leaders.

Action 4.1c: Disaster Kits. Work with local places of worship and community organizations to provide disaster kits to vulnerable populations.

Public Health, Safety, and Environmental Justice Element: Policy 4.2
Create resilience centers throughout Highland.

Action 4.2a: Back Up Power. Continue to ensure that critical City facilities have back up energy sources such as battery storage. Prioritize clean energy sources, such as solar, where feasible.

Action 4.2b: Refrigeration. Install refrigerators at resilience centers, such as existing cooling centers and emergency shelter locations, to provide storage for medication in black out or other hazard events.

Action 4.2c: Audit Emergency Childcare. Work with non-profit organizations, such as the Red Cross, to offer emergency childcare for frontline workers in the event that schools are closed in a hazard event.

Action 4.2d: Food Distribution. Work with local foodbanks to distribute food and pop-up food pantries during hazard events.

Action 4.2e: Advertise Regional Programs. Include information on regional assistance programs in appropriate languages during a hazard event.

Public Health, Safety, and Environmental Justice Element: Policy 4.3
Prepare residential areas for flooding and wildfire.

Action 4.3a: Elevate and Anchor. Educate and encourage property owners in flood zones to elevate and anchor critical utilities, including electrical panels, propane tanks, sockets, wiring, appliances, and heating systems.

Action 4.3b: Sandbags. Implement a sandbag program available for residents in flood zones prior to heavy storms.

Action 4.3c: Fire Safe Communications. Prior to fire season, use outreach events and City communication resources to educate the public on how they can create a defensible space around their place of residence and evacuate in case of fire.

Action 4.3d: Require evacuation assessments on residential projects requiring an Environmental Impact Report in designated wildfire hazard severity zones.

Public Health, Safety, and Environmental Justice Element: Policy 4.4
Ensure the Emergency Operations Center (EOC) has adequate capacity to respond to hazard events.

Action 4.4a: EOC Technology. Continue to conduct a periodic review of technology used to support the EOC to ensure systems are updated and effective, including City GIS.

Action 4.4b: EOC Equipment. When feasible, update EOC equipment and supplies as necessary to ensure effectiveness.

Action 4.4c: Staff Training. Continue EOC training and exercise plan for the City staff with EOC responsibilities, and cross train city staff at various EOC positions.

Action 4.4d: Online Training. Expand staff training by conducting quarterly online WebEOC training for EOC staff. Include extended training formats as applicable.

Action 4.4e: Mutual Aid Participation. Continue to participate in Statewide Master Mutual Aid Agreements and local automatic aid agreements.

Public Health, Safety, and Environmental Justice Element: Goal 5

Improve the quality of the built and natural environments to reduce disparate health and environmental impacts.

Public Health, Safety, and Environmental Justice Element: Policy 5.1

Adopt land use regulations that protect residential and park uses from the impacts of industrial and roadway pollution.

Action 5.1a: Land Use Review. Conduct a review of existing Municipal Code to determine where existing legislation encourages or allows land uses and programs that are detrimental to the health of residents in DACs.

Action 5.1b: Monitor Industrial Areas. Establish a monitoring program to periodically evaluate and report the immediate and long-term health and environmental impacts of the proximity of residential and park uses to industrial areas in DACs.

Action 5.1c: Siting Industrial Uses. Disallow siting and construction of new industrial uses that could impact the health of residents in the DACs.

Public Health, Safety, and Environmental Justice Element: Policy 5.2

Remediate and prevent pollution arising from industrial and household sources.

Action 5.2a: Pollution Review. Conduct a review to determine where existing pollution sources are impacting residents in the DACs.

Action 5.2b: Hazards Cleanup. In conjunction with other local and regional agencies, ensure the cleanup of contaminated surface water, groundwater, and soils in affected DACs.

Action 5.2c: Green Streets. Prevent future groundwater pollution by implementing green street strategies to support a sustainable approach to stormwater, drainage, groundwater recharge, and landscaping, and incorporating green streets standard and guidelines in all streetscape improvements where feasible.

Wildland fire is a topic that was historically addressed as part of Chapter 4.10, Hazards and Hazardous Waste. Due to the increasing significance of wildland fire hazards where the urban-wildland interface occurs, a new issue category was added to the Initial Study Environmental Checklist Form, Wildfire. Please refer to Subchapter 4.20 of this document for a full discussion of Wildfire hazards within the AGSP project area.

City of San Bernardino General Plan

Hazardous Materials and Waste

The City General Plan states: *The City's goals and policies for hazardous materials and uses are designed to ensure the protection of the public health, safety, and welfare, and environmental resources in the City. Planning practices emphasize waste reduction, recycling, proper management of hazardous materials, siting of facilities, and effective emergency response...*

The San Bernardino County Fire Department is responsible for implementing the County Hazardous Waste Management Plan in the City of San Bernardino. Adopted in the early 1990's, this plan established regulations at the local level for the creation, storage, and handling of hazardous waste material. The management plan provides the following components:

- *Planning process for waste management*
- *Permit process for new and expanded facilities*
- *Appeal process to the State for certain local decisions*

City of San Bernardino General Plan goals and policies regarding hazardous materials/waste management include the following:

Hazardous Waste Management Plan

Safety: Goal 10.1

Protect the environment, public health, safety, and welfare from hazardous wastes.

Safety Policy 10.1.1

Employ effective emergency preparedness and emergency response strategies to minimize the impacts from hazardous materials emergencies, such as spills or contamination.

Safety Policy 10.1.2

Ensure the protection of surface and groundwater quality, land resources, air quality, and environmentally sensitive areas through safe transportation of waste through the City and comprehensive planning of hazardous materials, wastes, and sites.

Safety Policy 10.1.3

Execute long-range planning programs to protect resources and the public from the potential impacts that could be created by the use, storage, transport, and disposal of hazardous waste and materials.

Safety Policy 10.1.4

Continue to support the role that the Fire and the Police Departments play in the on-site identification of hazardous wastes and emergency response to hazardous waste accidents in cooperation with the County Department of Environmental Health Services.

Hazardous Waste Operations

Safety: Goal 10.2

Promote proper operations of hazardous waste facilities and ensure regulations applicable to these facilities are enforced.

Safety Policy 10.2.1

Require the proper handling, treatment, movement, and disposal of hazardous materials and hazardous waste.

Safety Policy 10.2.2

Encourage businesses to utilize practices and technologies that will reduce the generation of hazardous wastes at the source.

Safety Policy 10.2.3

Implement federal, state, and local regulations for the disposal, handling, and storage of hazardous materials.

Safety Policy 10.2.4

Work with the Department of Environmental Health Services to promote waste minimization, recycling, and use of best available technology in City businesses.

Safety Policy 10.2.5

Participate in the process of selecting routes that are the most acceptable for the safe transportation of hazardous waste material within the City limits. Streets with high concentrations of people, such as the downtown, or with sensitive facilities, such as schools and parks, should be avoided to the maximum extent possible.

Household Hazardous Waste

Safety: Goal 10.3

Minimize risk of injuries or damages caused by household hazardous waste.

Safety Policy 10.3.1

Conduct educational programs to educate the public about the proper handling and disposal of household hazardous wastes.

Safety Policy 10.3.2

Enforce the proper disposal of Household Hazardous Wastes.

4.10.3 Existing Conditions: Hazards and Hazardous Materials

Hazards and Hazardous Waste

The San Bernardino County Fire Department, Hazardous Materials Division (HMD) serves as the Certified Unified Program Agency (CUPA) for the whole County, including the cities of Highland and San Bernardino. The CUPA oversees disposal, processing, storage and treatment of local hazardous material and waste management issues. A key component of this process is the preparation and submittal of a Hazardous Materials Business Plan (Plan) by individual businesses based on handling of hazardous materials and generation of hazardous waste. The Plan must include a list of hazardous materials or wastes managed onsite and emergency response plans and procedures required to manage an accidental spill or release. The Business Plans are required to be updated by March 1 each year to ensure it accurately reflects onsite business activities. The Business Plan is used by first responders to manage emergency responses to a facility with hazardous materials/wastes onsite. HMD conducts periodic compliance inspections of facilities that file Business Plans.

The County manages a household hazardous waste collection center in the City of San Bernardino. The San Bernardino Collection Center is located at 2824 "W" Street, located just south of 3rd Street and east of Victoria Avenue at the San Bernardino International Airport. Residents of nearby cities can drop off small quantities of household hazardous wastes instead of disposing of such materials in their municipal trash. Certain wastes, such as cathode ray tubes and electronic waste material are accepted by recyclers throughout the County, with the nearest recycler to the two cities located in Rialto. There are no commercially permitted hazardous recycling, treatment, storage and disposal (TSD) facilities located in either city.

The City of San Bernardino has an estimated seven hazardous waste transportation companies within the City (General Plan page 5.6-7). Based on a review of the transporter addresses, none of these facilities is located within the AGSP project area. Similarly, the City of Highland does not identify any hazardous waste transportation companies within its boundaries.

Hazardous materials and wastes are primarily transported over the interstate highways, state highways, and railroads. The California Highway Patrol (CHP) is in charge of responses to emergencies involving hazardous material transport on these major transportation corridors. The only highway that actually borders the AGSP project area is Interstate 210 on the eastern edge of the project area. Interstates 10 and 215 are located a few miles from the AGSP project area, and no national railroad tracks occur within the project area. On local roadways the County Sheriff and local fire departments manage emergencies involving hazardous materials.

There are two sites on the National Priorities List (NPL) in the City of San Bernardino. The NPL identifies sites with substantial contamination that require sustained remediation. The first site is the Newmark Groundwater contamination site. Substantial hydrocarbon chemicals were released (Tri- and Per-chlorethylene) into the soil that migrated to the groundwater table. The Newmark site is located in the northwestern portion of the City (north of 30th Street and west of Waterman) and groundwater clean-up continues. However, this site has no direct adverse impact on the AGSP project area.

The second NPL site is former Norton Air Force Base. The Air Base was shuttered in 1994 and the Air Force properties were ultimately transferred to the San Bernardino International Airport

Authority and Inland Valley Development Agency. The Air Force identified approximately 100 sites with potential contamination on the approximate 2,100-acre property. The Air Force assumed responsibility for clean-up (remediation) of these sites, and all but two have been fully remediated. The remaining two sites are the practice shooting range which contains lead contamination and a hydrocarbon contaminated groundwater plume that extended off the Airport to the southwest. The shooting range (located in the southeast portion of the Airport) is nearing complete remediation and the groundwater plume has been reduced to hydrocarbon concentrations less than the State maximum contaminant level (MCL) at this time. The Air Force groundwater treatment facilities remain in place should any hydrocarbons in the soil migrate to the groundwater table and cause further contamination. Neither of these contaminated sites pose any direct hazard to the AGSP project area.

The City of Highland has no NPL or other major contaminated sites. Agricultural areas may have some residual contamination (pesticides and fertilizers), but typically these do not require special treatment, just blending of soils when a site's soils are prepared for development. The AGSP project area has not been subject to intensive, long-term farming. One site in the City has been identified on the Department of Toxic Substances Control (DTSC) data base as possibly having contamination, but it is located in the northern portion of the City and has no potential impact on the AGSP.

One of the most common sources of hazardous contamination in urban environments is related to underground storage tanks (USTs) and accidental releases from these facilities if and when they leak. The State maintains an extensive data base of leaking underground storage tanks (LUFTs). The lists in the General Plans identify one LUFT at the boundary of the AGSP project area on Tippecanoe Avenue at 24914 5th Street. In the City of Highland, a total of four LUFT sites have been identified. All of these are located in the vicinity of 5th Street and Palm Avenue. What follows is a listing the potential sites with contamination and their status. Status is based on a review of the current GeoTracker data base (Appendix 7 of Volume 2) for the project area and the status of the site contamination.

Site Name	Address	City	Status
Arco #5541	25330 3rd Street	Highland	Case Closed
Circle K #335	24901 E 5th Street	San Bernardino	Case Closed
High School	1428 E 6th Street	San Bernardino	No Further Action
IskandarTexaco	24914 5th Street	San Bernardino	Case Closed
Mobil #18	2742 Del Rosa Avenue	San Bernardino	Case closed
Tech Park HS	3rd St. and Tippecanoe Ave.	San Bernardino	Needs Evaluation
Unocal #5128	2736 Del Rosa Avenue	San Bernardino	Case Closed
Arco AM PM #5617	27323 5th Street	Highland	Case Closed
Safety-Kleen Corp.	7979 Palm Avenue	Highland	Open-Site Asses.
Safety-Kleen Sys. Inc	7979 Palm Avenue	Highland	No Action
Safety-Kleen Sys. Inc	7979 Palm Avenue	Highland	No Further Action
Cal Disposal	26009 6th Street	Highland	Case Closed

As the preceding data indicate, only two of the sites need further action, and the only location with identified contamination is the Safety-Kleen Corporation site located in Highland at the northeast corner of 3rd Street and Palm Avenue, which is within the AGSP area.

No other sources of contamination are known to exist within the AGSP project area.

San Bernardino International Airport

An airport often contains safety protection zones and influence zones that extend outside of the actual airport boundary. San Bernardino International Airport (SBIA or Airport) safety and influence zones are shown on Figure 4.10-3. Based on this map, the AGSP project area is located in both the Traffic Pattern Zone and the Airport Influence Zone. The inner turn zone on the north side of the Airport affects a small area around Palm Avenue and 3rd and 5th Streets. All of these zones are considered to be of low risk or negligible risk to the underlying population. Also, the AGSP project area is not located within the Airport's 65 dBA Ldn (day-night level) noise contour, so noise impacts are not considered to be significant within the AGSP based on current forecasts for air operations.

4.10.4 Thresholds of Significance

According to Appendix G of the CEQA Guidelines and the Initial Study Environmental Checklist Form, a project would normally have a significant effect on the environment if the project would:

- HAZ-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- HAZ-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.
- HAZ-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- HAZ-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 it create a significant hazard to the public or the environment.
- HAZ-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 the Project result in a safety hazard for people residing or working in the project area.
- HAZ-6 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evaluation plan.
- HAZ-7 Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

4.10.5 Methodology

The project area is too large to have site-specific Phase I Environmental Site Evaluation (ESA). Therefore, at this stage of project review when there are no proposed site-specific projects proposed, use of the General Plan data bases and the GeoTracker data base provides sufficient information to assess the general potential for hazards or hazardous materials to constrain future development or to pose a hazard for future site-specific development. In particular, this is the time to establish expectations for future site evaluations. Consistent with this approach for future projects within the AGSP area, a Phase I ESA will need to be prepared: a site reconnaissance of the project site, limited observations of adjoining properties, a review of the historical usage of the project site (including the review of historical aerial photographs, building permits, Sanborn Fire Insurance Maps, and other documentation), and a review of relevant documentation provided by

various public and private sources to identify conditions indicative of releases or threatened releases of hazardous substances. However, at this point in time the broad-based data available from the City General Plans and General Plan EIR along with the current GeoTracker data base for the AGSP project area are sufficient to evaluate the current exposure to hazards within the area.

4.10.6 Environmental Impacts

HAZ-1 Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Under the AGSP the project area will transition from the mix of uses that presently exists to a core job producing area within both cities. The future mix of light industrial, technology, and business park uses is forecast to increase the potential for routine transport, use and disposal of hazardous materials to support business operations. This is a general forecast, not specific as to types of hazardous materials that will experience future routine transport within the AGSP project area. As has been described in the preceding description of the existing environment, the primary hazardous material that can be expected to grow in use will be vehicle fuel. Part of this demand may be offset by the current transition in California to electric vehicles, but initially additional fuel storage to support transportation should be expected within the project area. Depending on the range of future industrial activities, it is possible that some hazardous materials may also be required to support potential manufacturing or technology activities within the AGSP project area.

Proceeding under the assumption that the project area will experience increase in transport, use and disposal of hazardous materials, the key issue is whether there needs to be any measures to ensure that such routine transport in support of future specific uses, other than existing regulations referenced above, does not result in harm to the future employees and residents within the project area or nearby residential areas. There is an existing, well-established framework for managing hazardous materials and wastes from cradle to grave. Hazardous materials must be carefully logged before transport; managed during transport; and once delivered become part of a local Business Plan. If an accident occurs, a response infrastructure already exists to respond to protect humans and the environment; control the spread of a hazard; and remove any contaminated waste for ultimate treatment or disposal. Although there may be sufficient infrastructure in place to manage transport and emergency response to hazardous materials, it is probable that additional personnel and equipment will be needed to effectively implement these existing programs.

In addition to more resources, there will also be a need to minimize interactions between transport activities and adjacent residential areas. To achieve this, it will be necessary to identify truck routes that connect regional transportation corridors with the project area. This can be done by directing truck traffic to 3rd and 5th Streets and restricting most truck traffic on 6th Street from Central Avenue west to Tippecanoe Avenue. In accordance with this approach, the truck access to industrial buildings between 5th and 6th Streets should be oriented to 5th Street. 6th Street should have signs restricting through access with truck traffic limited to local deliveries. With these requirements established as mitigation measures, the potential for significant adverse impacts to result from implementing the AGSP with related increased routine delivery of hazardous materials to the project area can be reduced to a less than significant impact level. Therefore, mitigation measure (MM) **HAZ-1** has been identified to reduce any potential impact to residential uses to a less than significant impact level:

HAZ-1 *Following approval of the AGSP, the cities of Highland and San Bernardino shall jointly designate 3rd and 5th Streets within the AGSP project area as truck routes. 6th Street shall be mostly designated for local deliveries only. Specific design guidelines for new industrial buildings fronting on 6th Street shall incorporate buffers to reduce potential conflicts between the industrial uses that are south of 6th and residential uses north of this roadway. All routine truck access to industrial projects constructed between 5th and 6th Streets shall be from 5th Street. Buffering techniques along 6th Street may include the following: dense landscape buffering; use of landscaped berms; short walls with articulation; and other designs acceptable to the city with land use jurisdiction.*

With incorporation of this mitigation measure, any impacts to due to truck operations for delivery and removal of hazardous materials/wastes and potential land use conflicts will be reduced to a less than significant level.

HAZ-2 **Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

During construction, there are activities that can expose the public to significant hazards from accidental circumstances. The first pathway occurs when petroleum products are accidentally released from construction equipment or storage facilities. For example, vandalism can cause a release from stored fuels, or a hydraulic hose may break on a large piece of construction equipment. This type of impact is readily mitigated by immediately stopping the construction activity; controlling the accidental release; and carrying out remediation of the area contaminated by the spill. Therefore, MM **HAZ-2** has been identified to reduce any potential impact to a level of less than significant:

HAZ-2 *Prior to and during grading and construction, should an accidental release of a hazardous material occur, the following actions will be implemented: construction activities in the immediate area will be immediately stopped; appropriate regulatory agencies will be notified; immediate actions will be implemented to limit the volume and area impacted by the contaminant; the contaminated material, primarily soil, shall be collected and removed to a location where it can be treated or disposed of in accordance with the regulations in place at the time of the event; any transport of hazardous waste from the property shall be carried out by a registered hazardous waste transporter; and testing shall be conducted to verify that any residual concentrations of the accidentally released material are below the regulatory remediation goal at the time of the event. All of the above sampling or remediation activities related to site contamination will be conducted under the oversight of County Hazardous Materials Division. All of the above actions shall be documented and made available to the appropriate regulatory agencies prior to closure (a determination of the regulatory agency that the site has been remediated to a threshold that poses no hazard to humans) of the contaminated area. This measure shall be made a requirement of future projects in the AGSP project area.*

The second circumstance under which there is potential to expose persons to the release of hazardous materials occurs when unknown contaminants below the ground surface are exposed during construction. An example would be a barrel of hazardous material buried below the ground surface that could be exposed during grading. As in the previous instance, the exposure of such contamination typically occurs over a very limited area and with proper mitigation the potential

hazard to humans and the environment can be managed so it will not significantly impact either humans or the environment. Therefore, MM **HAZ-3** has been identified to reduce any potential impact to a level of less than significant:

HAZ-3 *During grading if an unknown contaminated area is exposed, based on field observations by the contractor, soils engineer or City/County inspector, the following actions will be implemented: any contamination found during construction will be reported to the County Hazardous Materials Division. Further, all of the sampling or remediation related to the contamination will be conducted under the oversight of this County department. In the event contamination is found, construction activities in the immediate area will be immediately stopped; appropriate regulatory agencies will be identified; a qualified professional (industrial hygienist or chemist) shall test the contamination and determine the type of material and define appropriate remediation strategies; immediate actions will be implemented to limit the volume and area impacted by the contaminant; the contaminated material, primarily soil, shall be collected and removed to a location where it can be treated or disposed of in accordance with the regulations in place at the time of the event; any transport of hazardous waste from the property shall be carried out by a registered hazardous waste transporter; and testing shall be conducted to verify that any residual concentrations of the accidentally released material are below the regulatory remediation goal (MCL) at the time of the event. All of the above actions shall be documented and made available to the appropriate regulatory agencies prior to closure of the contaminated area (a determination of the regulatory agency that the site has been remediated to a threshold that poses no hazard to humans or the environment). This measure shall be made a requirement of future projects in the AGSP project area.*

The incorporation of MMs **HAZ-2** and **HAZ-3** will reduce the potential of accidental release and exposure by identifying those actions that must occur in the event of an accidental release or the disturbance of a previously unknown contaminated area. These measures require notification of appropriate regulatory agencies, and specific activities that will limit and control the potential for exposure. As a result, **impacts would be less than significant with mitigation.**

HAZ-3 **Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

There are four schools adjacent to the AGSP project area or within one-quarter mile proximity to the project area. These schools include: Curtis Middle School; Indian Springs High School; Cypress Elementary School; and School of Hope. Although there is a low probability that industrial or business park uses that locate in the AGSP will generate hazardous emissions, or acutely hazardous materials, substances or waste, the potential does exist for this situation to occur. Therefore, it will be necessary to implement mitigation to prevent such potential conflicts or to ensure that sufficient controls on generation of such emissions will be in place. Therefore, MM **HAZ-4** has been identified to reduce any potential impact to a level of less than significant:

HAZ-4 *The City reviewing future site-specific development proposals shall verify the distance from the nearest school. If located within one-quarter mile of a school, the application for the project must demonstrate that no handling of acutely hazardous materials will occur within the facility. Alternatively, the proposed development can provide sufficient information to the City to verify that hazardous emission or acutely hazardous materials will be under*

sufficient control that potential exposure at the school is negligible, less than a once in 100-year possibility.

With implementation of MM **HAZ-4**, the potential hazards at nearby schools can be controlled to a less than significant impact.

HAZ-4 Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Based on the data contained in the preceding Existing Conditions discussion, there is one known site with contamination within the AGSP project area. This is the Safety-Kleen Corporation site located in Highland, at the northeast corner of 3rd Street and Palm Avenue. This site is an existing industrial operation and it is not expected to or required to change its use under the AGSP. The remainder of the project area does not have any other known contaminated sites that have not been remediated. In addition, MM **HAZ-3** will ensure that if future construction at a site exposes any contamination, it will be properly remediated prior to a development proceeding. Based on these findings, the AGSP project area is not exposed to significant hazards from existing/known hazardous materials sites. No further mitigation is required.

HAZ-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 the Project result in a safety hazard or excessive noise for people residing or working in the project area?

The closest airport facility to the project area is the San Bernardino International Airport, which lies immediately south of the AGSP project area. Based on the data provided under the Existing Conditions above, the project area is subject to the Airport Traffic Pattern Zone and Airport Influence Area. This Zone and Area encompass most of the AGSP project area and pose low and negligible risk levels due to Airport operations. A small area of the Inner Turning Zone encompasses the triangle of land between 3rd Street and 5th Street at Palm. This whole area is currently fully developed, and no land use modifications are anticipated in this area.

The limited risk from being within the Traffic Pattern Zone and the Airport Influence Zone combined with the envisioned low-density industrial and business park populations that will occur in the future under the AGSP, does not pose any significant hazards to humans. Therefore, implementation of the project will not result in an inconsistency with any airport master plan, or require review by the Airport Land Use Commission. As a result, **no significant adverse impact** would occur and no mitigation is required related to airport hazards. Refer to the noise evaluation for a discussion of noise impacts related to future AGSP implementation.

HAZ-6 Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The project will be implemented off of existing access roads to the area (3rd, 5th, and 6th east and west and Tippecanoe, Del Rosa, Sterling, Victoria, Central and Palm, Church and Interstate 210 north and south). Neither City has established formal emergency response or emergency evacuation plans. The City of Highland has identified reliance on major transportation corridors (freeways and highways) and major arterials, such as 5th Street. Because all building construction will be outside of road rights-of-way, limited potential exists to interfere with an emergency response or evacuation plan during construction. Any construction on adjacent roadways to install infrastructure would be temporary in nature. Nonetheless, to ensure that infrastructure

construction activities on roadways minimize interference with emergency routes and access, MM **HAZ-5** has been identified:

HAZ-5 *To the extent that construction activities must occur within adjacent on-site and off-site roadway rights-of-way, a Traffic Management Plan, prepared for construction activities, shall provide adequate emergency access to all parcels of land at all times, and shall include measures to ensure that during an emergency evacuation, the right-of-way is accessible for this purpose. Adequate emergency access is defined as access by any emergency personnel to any occupied parcel at all times during construction activities. Prior to grading permit issuance, the Cities of Highland and San Bernardino shall verify and approve the construction Traffic Management Plan that must incorporate adequate measures to ensure emergency access and availability of adjacent on-site and off-site roadways should an evacuation be needed.*

During future project-related construction activities on area roadways, control of access will ensure emergency access is maintained to the project area during construction. MM **HAZ-5** will be implemented to require the preparation and approval of a Traffic Management Plan during construction in accordance with County and City access requirements, with a focus on provision of emergency access to properties in the surrounding vicinity of construction activities. MM **HAZ-5** ensures that prior to the start of construction, a Traffic Management Plan, based on final design and construction plans for individual site-specific projects, is in place to adequately divert traffic and maintain emergency access. Since the manner and scope of construction activities cannot be defined at this time, it is necessary to utilize a performance standard rather than specify measures that would not be pertinent to actual future construction activities within public roadways. With incorporation of this mitigation measure, any impacts to emergency access and evacuations will be reduced to a less than significant level.

Following implementation of the AGSP, emergency access to the project area will be enhanced relative to the existing emergency access over the roadways within the AGSP project area. This is because the area roadways will be improved to their ultimate design designation to meet the buildout traffic flow requirements, i.e., these roadways will be improved consistent with future traffic flow requirements as assigned within the AGSP, and ultimately in each City's General Plan Circulation Element.

Given the above findings, **future access impacts will be less than significant with mitigation.**

HAZ-7 **Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?**

The project site is not located within an area identified as a moderate, high or very high fire hazard severity areas of two city's General Plans. According to the General Plans, the California Department of Forestry and Fire Protection (CAL FIRE) has recommended that the urban, low-lying areas in Highland and San Bernardino be classified as having a Moderate Fire Hazard. The proposed project is required to conform to applicable minimum standards for fire safety as defined in the City and County Building Code. The AGSP requires projects to ensure that fire flow requirements will be adequate in the project area and to provide fee and tax support for adequate fire-fighting resources in the project area. Refer to Subchapter 4.20 Wildfire, for a more detailed discussion of this issue. Based on this information, implementation of the project will not expose people or structures to a significant risk of loss, injury or death involving wildland fires. Therefore, **impacts would be less than significant.** No mitigation is required.

4.10.7 Mitigation Measures

The mitigation measures summarized below shall be implemented to reduce potential hazards and hazardous material impacts to a less than significant level of impact.

- HAZ-1** *Following approval of the AGSP, the cities of Highland and San Bernardino shall jointly designate 3rd and 5th Streets within the AGSP project area as truck routes. 6th Street shall mostly be designated for local deliveries only. Specific design guidelines for new industrial buildings fronting on 6th Street shall incorporate buffers to reduce potential conflicts between the industrial uses that are south of 6th and residential uses north of this roadway. All routine large truck access to industrial projects constructed between 5th and 6th Streets shall be from 5th Street. Buffering techniques along 6th Street may include the following: dense landscape buffering; use of landscaped berms; short walls with articulation; and other designs acceptable to the city with land use jurisdiction.*
- HAZ-2** *Prior to and during grading and construction, should an accidental release of a hazardous material occur, the following actions will be implemented: construction activities in the immediate area will be immediately stopped; appropriate regulatory agencies will be notified; immediate actions will be implemented to limit the volume and area impacted by the contaminant; the contaminated material, primarily soil, shall be collected and removed to a location where it can be treated or disposed of in accordance with the regulations in place at the time of the event; any transport of hazardous waste from the property shall be carried out by a registered hazardous waste transporter; and testing shall be conducted to verify that any residual concentrations of the accidentally released material are below the regulatory remediation goal at the time of the event. All of the above sampling or remediation activities related to the contamination will be conducted under the oversight of County Hazardous Materials Division. All of the above actions shall be documented and made available to the appropriate regulatory agencies prior to closure (a determination of the regulatory agency that the site has been remediated to a threshold that poses no hazard to humans) of the contaminated area. This measure shall be made a requirement of future projects in the AGSP project area.*
- HAZ-3** *During grading if an unknown contaminated area is exposed, based on field observations by the contractor, soils engineer or City/County inspector, the following actions will be implemented: any contamination found during construction will be reported to the County Hazardous Materials Division. Further, all of the sampling or remediation related to the contamination will be conducted under the oversight of this County department. In the event contamination is found, construction activities in the immediate area will be immediately stopped; appropriate regulatory agencies will be identified; a qualified professional (industrial hygienist or chemist) shall test the contamination and determine the type of material and define appropriate remediation strategies; immediate actions will be implemented to limit the volume and area impacted by the contaminant; the contaminated material, primarily soil, shall be collected and removed to a location where it can be treated or disposed of in accordance with the regulations in place at the time of the event; any transport of hazardous waste from the property shall be carried out by a registered hazardous waste transporter; and testing shall be conducted to verify that any residual concentrations of the accidentally released material are below the regulatory remediation goal (MCL) at the time*

of the event. All of the above actions shall be documented and made available to the appropriate regulatory agencies prior to closure of the contaminated area (a determination of the regulatory agency that the site has been remediated to a threshold that poses no hazard to humans or the environment). This measure shall be made a requirement of future projects in the AGSP project area.

HAZ-4 *The City reviewing future site-specific development proposals shall verify the distance from the nearest school. If located within one-quarter mile of a school, the application for the project must demonstrate that no handling of acutely hazardous materials will occur within the facility. Alternatively, the proposed development can provide sufficient information to the City to verify that hazardous emission or acutely hazardous materials will be under sufficient control that potential exposure at the school is negligible, less than a once in 100-year possibility..*

HAZ-5 *To the extent that construction activities must occur within adjacent on-site and off-site roadway rights-of-way, a Traffic Management Plan, prepared for construction activities, shall provide adequate emergency access to all parcels of land at all times, and shall include measures to ensure that during an emergency evacuation, the right-of-way is accessible for this purpose. Adequate emergency access is defined as access by any emergency personnel to any occupied parcel at all times during construction activities. Prior to grading permit issuance, the Cities of Highland and San Bernardino shall verify and approve the construction Traffic Management Plan that must incorporate adequate measures to ensure emergency access and availability of adjacent on-site and off-site roadways should an evacuation be needed.*

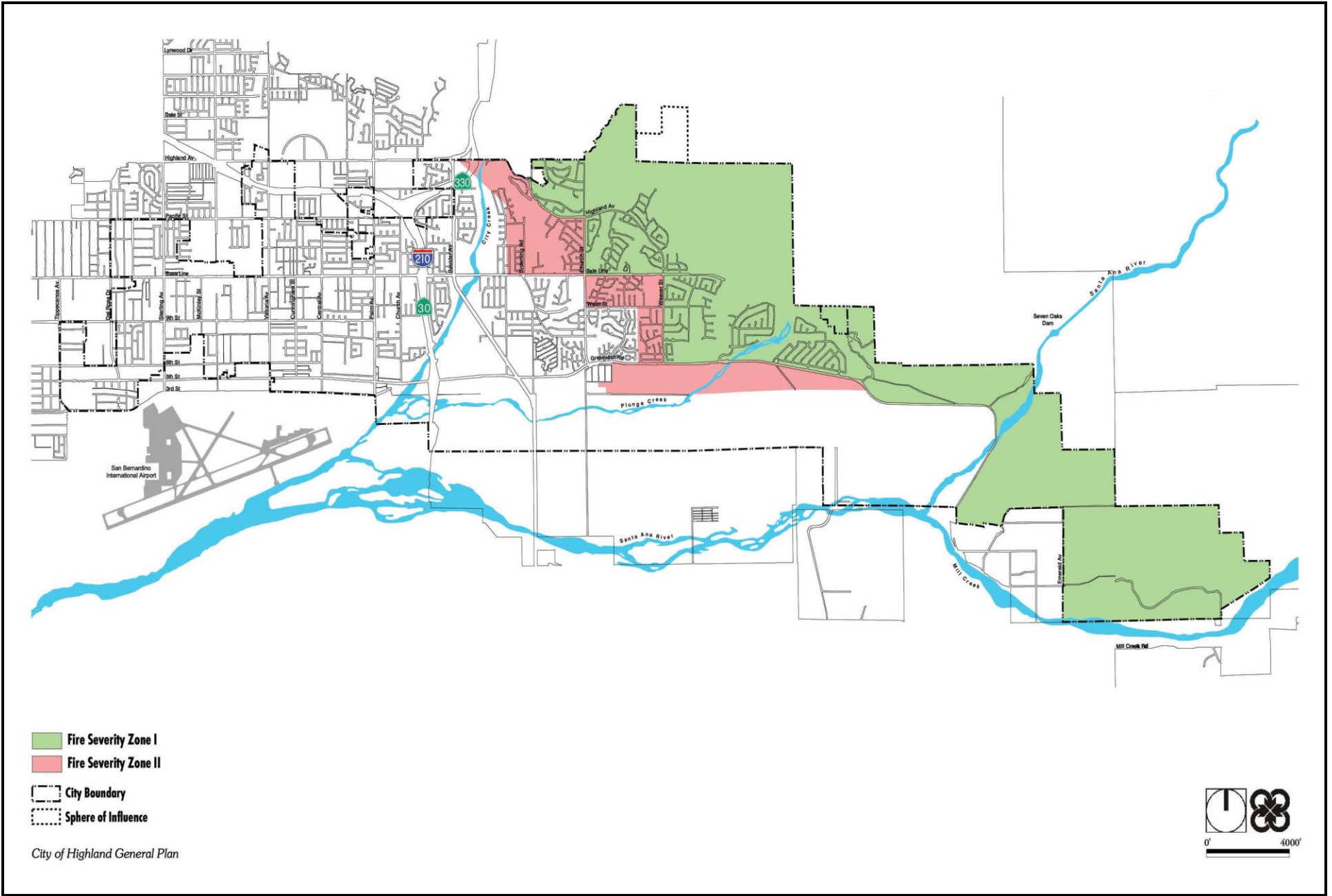
4.10.8 Cumulative Impacts

The AGSP project is not forecast to make a cumulatively considerable contribution to on- of off-site hazards and hazardous material issues. For those potential hazards or hazardous material issues with a potential for direct significant impact within the project area, mitigation measures have been provided that can reduce the project's contribution to cumulative impacts to a less will be required to reduce site specific and ultimately cumulative impacts to a less than significant level. Because most of the project impacts contribute to cumulative demand for emergency services or protection of the public from hazards, all of the above measures shall be implemented. Because the project area is generally free of hazards and hazardous contamination, the proposed project will not contribute to a cumulatively considerable significant impact to these issues.

4.10.9 Significant and Unavoidable Impacts

As determined above, the data substantiate that no significant and/or unavoidable significant adverse impacts relating to hazards or hazardous materials will occur as a result of the implementing the AGSP.

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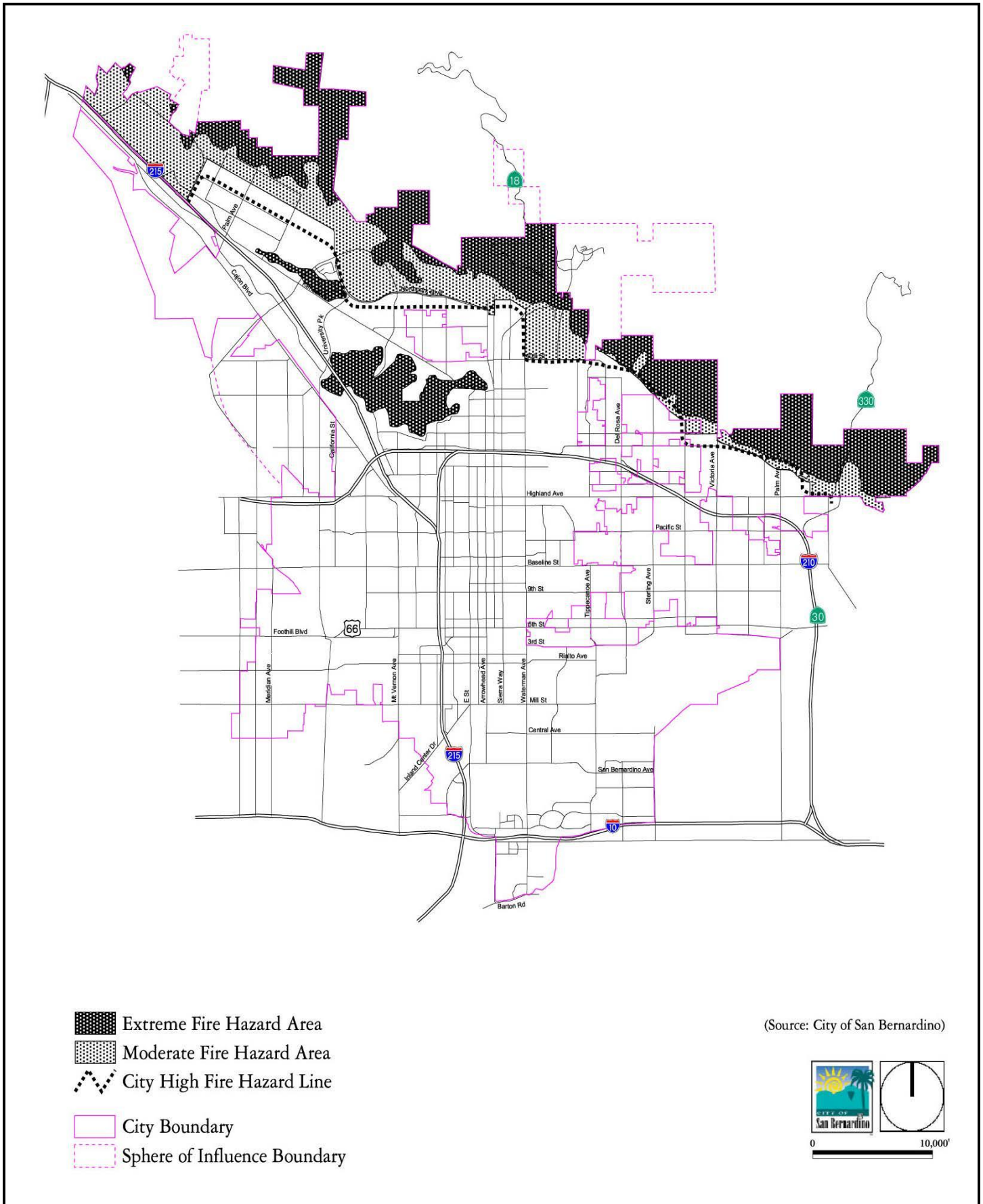


SOURCE: City of Highland General Plan

FIGURE 4.10-1

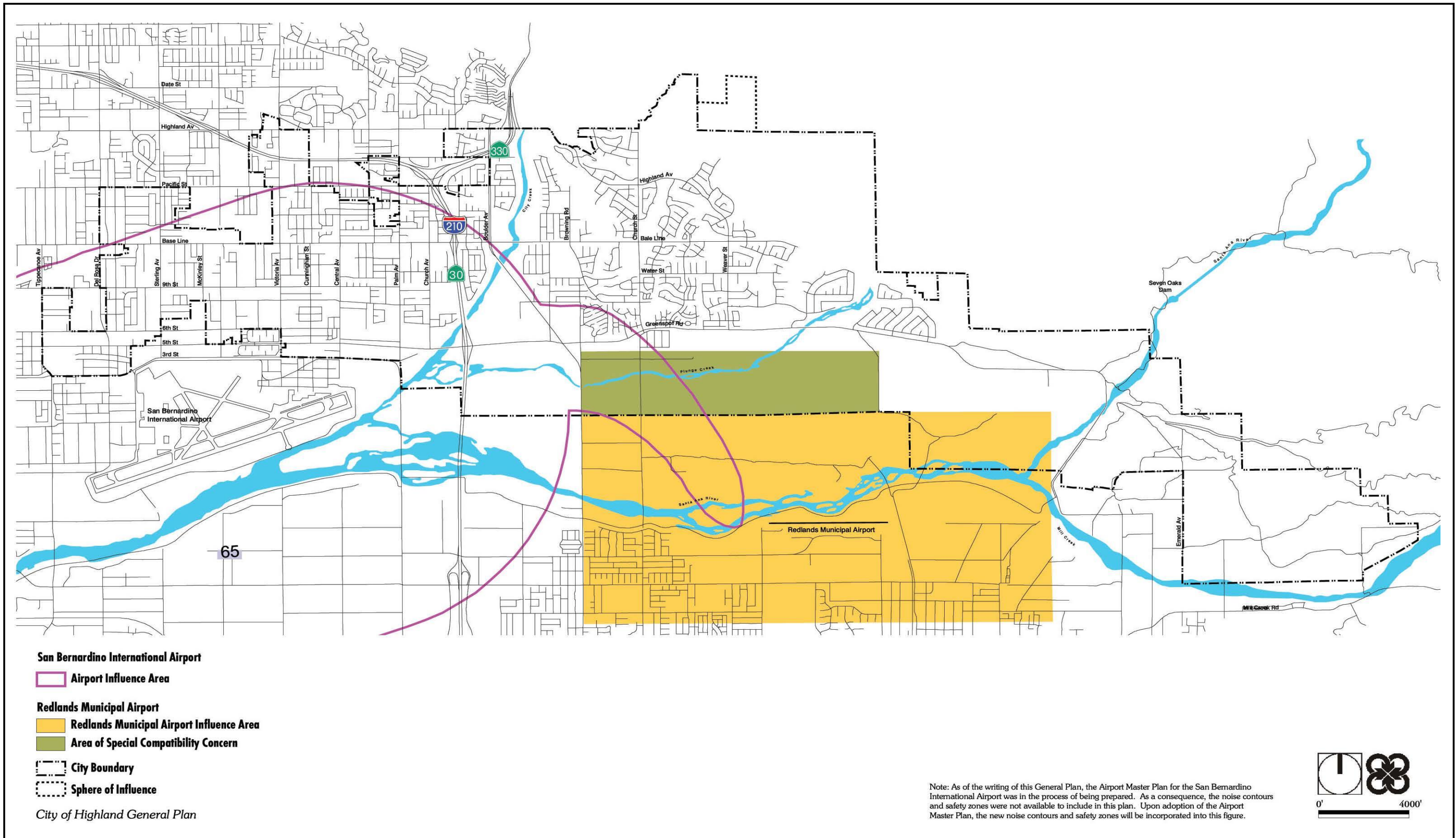
Tom Dodson & Associates
 Environmental Consultants

Fire Hazards and Safety Overlay Areas



SOURCE: City of San Bernardino General Plan, November 2005 (Figure S-9)

FIGURE 4.10-2



Source: City of Highland General Plan EIR

FIGURE 4.10-3

4.11 HYDROLOGY AND WATER QUALITY

4.11.1 Introduction

This subchapter evaluates the environmental impacts relating to hydrology and water quality from implementation of the proposed project, the Airport Gateway Specific Plan (AGSP) Project. These issues will be discussed below as set in the following framework:

- 4.11.1 Introduction
- 4.11.2 Regulatory Setting
- 4.11.3 Existing Conditions
- 4.11.4 Thresholds of Significance
- 4.11.5 Methodology
- 4.11.6 Environmental Impacts
- 4.11.7 Mitigation Measures
- 4.11.8 Cumulative Impacts
- 4.11.9 Significant and Unavoidable Impact

The following technical report was used in preparing this subchapter of the DEIR. Refer to Volume 2 of this document, Appendix 8a.

- "Preliminary Hydrology Study and Channel Design for City Creek By-Pass Channel

The following comments from the public regarding hydrology and water quality were received during the NOP comment period or at the Scoping Meeting:

NOP Comment Letter #7 Teamsters: The Comment Letter recommends that the DEIR contain flood mitigation.

Response: The proposed project intends to improve the City Creek Bypass Channel and the watershed flood management systems to ensure sufficient capacity to convey the future 100-year flood flows between Victoria Avenue (just north of the Airport and south of 3rd Street) and the Warm Creek Channel. This is discussed in detail in Subchapter 4.11, Hydrology. Refer to the following comment for more details.

NOP Comment Letter #8 San Bernardino County Public Works: The Comment Letter describes that the San Bernardino County Flood Control District (Flood Control District) possesses easement and fee-owned right-of-way within and surrounding the perimeter of the AGSP Planning Area, and notes that the AGSP Planning Area is within the Comprehensive Storm Drain Plan (CSDP) No. 6. The Comment Letter notes that, when planning for or altering existing or future storm drains, IVDA should be advised that the project is subject to the District's Comprehensive Storm Drain Plan No. 6, dated August 31, 2001. Construction of new or alterations to existing storm drains should be fully evaluated in the DEIR.

Response: A discussion of the applicability of and compliance with the District's Comprehensive Storm Drain Plan No. 6 can be found in Subchapter 4.11, Hydrology. The proposed project intends to improve the City Creek Bypass Channel to ensure sufficient capacity to convey the future 100-year flood flows between Victoria Avenue (just north of the Airport and south of 3rd Street) and the Warm Creek Channel. This is discussed in detail in Subchapter 4.11, Hydrology.

NOP Comment Letter #8 San Bernardino County Public Works: The Comment Letter notes the flood zones within which the AGSP Planning Area lies:

- FEMA Flood Insurance Rate Map, Panels 06071C8682J; 8701J, dated September 2, 2016, and 06071C8702H, dated August 28, 2008, the Project lies within Zones A, AE, X-shaded (500 yr. floodplain; protected by a levee), X-unshaded, and the Regulatory Floodway.

Response: The listed FIRM panels and flood zones are noted and fully analyzed in relationship to AGSP implementation under the analysis provided in Subchapter 4.11, Hydrology.

NOP Comment Letter #8 San Bernardino County Public Works: The Comment Letter recommends that the Cities of Highland and San Bernardino enforce its most recent regulations for development within a Special Flood Hazard Area (SFHA) and floodplains.

Response: The most recent regulations for development within SFHA and floodplains are analyzed in Subchapter 4.11, Hydrology; however, it should be noted that the improved capacity of the City Creek Bypass Channel would minimize the existing flood hazards throughout the AGSP Planning area.

NOP Comment Letter #8 San Bernardino County Public Works: The Comment Letter notes that any encroachments including, but not limited to access for grading, side drain connections, utilities crossing, street improvements, and channel improvements on the District's right-of-way or facilities will require a permit from the District's prior to start of construction. Additionally, District's facilities built by the Army Corps of Engineers (ACOE) will require the District to obtain approval (408-Permit) from the ACOE. These impacts should be discussed in the DEIR.

*Response: The District permit requirements are discussed and analyzed in Subchapter 4.11, Hydrology. The need for a 408-Permit from the ACOE is discussed therein as well, but is analyzed in more detail under subchapter 4.5, Biological Resources. MM **BIO-3** will be implemented if and when the City Creek Bypass Channel is disturbed.*

4.11.2 Regulatory Setting

State and local laws, regulations, plans, or guidelines that are applicable to the proposed project are summarized below.

Federal

Federal Clean Water Act

Pursuant to Section 404 of the Clean Water Act, the United States Army Corps of Engineers (ACOE) regulates discharges of dredged and/or fill material into waters of the United States. "Waters of the United States" are defined in ACOE regulations at 33 C.F.R. Part 328.3(a). Navigable waters of the United States are those waters of the United States that are navigable in the traditional sense. Waters of the United States is a broader term than navigable waters of the United States and includes adjacent wetlands and tributaries to navigable waters of the United States and other waters where the degradation or destruction of which could affect interstate or foreign commerce.

The Federal Clean Water Act (CWA) requires all states to conduct water quality assessments of their water resources to identify water bodies that do not meet water quality standards. The water bodies that do not meet water quality standards are placed on a list of impaired waters pursuant

to the requirements of Section 303(d) of the CWA. Portions of the Santa Ana River have been placed on the 303(d) list of impaired waters. Therefore, the proposed project area will discharge stormwater into receiving waters with known water quality impairments.

The Federal Clean Water Act and the State Porter-Cologne Water Quality Act, require basin-wide planning. Additionally, the National Pollution Discharge Elimination System (NPDES), empowers the regional boards to set discharge standards, and encourages the development of new approaches to water quality management. The SA Regional Board's Basin Plan (Water Quality Control Plan) identifies beneficial uses and water quality objectives for all waters of the state within the Board's jurisdiction, both surface and subsurface (groundwater). A beneficial use is one of the various ways that water can be used for the benefit of people and/or wildlife/environment. Refer to the beneficial use definitions in Chapter 3 of the Basin Plan and Tables 4.11-3 and 4.11-4. Presented below.

In 1972, the Federal Water Pollution Control Act (Clean Water Act) was amended to prohibit the discharge of pollutants to waters of the United States unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The Clean Water Act focused on tracking point sources, primarily from wastewater treatment facilities and industrial waste dischargers, and required implementation of control measures to minimize pollutant discharges. The Clean Water Act was amended again in 1987, adding Section 402(p), to provide a framework for regulating municipal and industrial storm water discharges. In November 1990, the U.S. Environmental Protection Agency (USEPA) published final regulations that establish requirements for specific categories of industries, including construction projects that encompass certain acreage, currently projects of one acre or larger.

National Flood Insurance Program

The National Flood Insurance Program ("NFIP") is a Federal program enabling property owners in participating communities to purchase insurance protection against losses from flooding. This insurance is designed to provide an insurance alternative to disaster assistance to meet the escalating costs of repairing damage to buildings and their contents caused by floods. Participation in the NFIP is based on an agreement between local communities and the Federal Government that states if a community will adopt and enforce a floodplain management ordinance to reduce future flood risks to new construction in Special Flood Hazard Areas, the Federal Government will make flood insurance available within the community as a financial protection against flood losses.

In support of the NFIP, FEMA identifies flood hazard areas throughout the United States and its territories by producing Flood Hazard Boundary Maps (FHBMs), Flood Insurance Rate Maps (FIRMs), and Flood Boundary & Floodway Maps (FBFMs). Several areas of flood hazards are commonly identified on these maps. One of these areas is the Special Flood Hazard Area (SFHA) or high-risk area defined as any land that would be inundated by the 100-year flood — the flood having a 1-percent chance of occurring in any given year (also referred to as the base flood).

The high-risk area standard constitutes a reasonable compromise between the need for building restrictions to minimize potential loss of life and property and the economic benefits to be derived from floodplain development. Development may take place within the SFHAs, provided that development complies with local floodplain management ordinances, which must meet the minimum Federal requirements.

State

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. Under this Act, the State Water Resources Control Board (SWRCB) has ultimate control over state water rights and water quality policy. In California, the EPA has delegated authority to issue NPDES permits to the SWRCB. The state is divided into nine regions related to water quality and quantity characteristics. The SWRCB, through its nine Regional Water Quality Control Boards (RWQCBs) carries 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.

National Pollutant Discharge Elimination System

The State Water Resources Control Board administers the NPDES permit program regulating stormwater from construction activities for projects greater than one acre in size. This is known as the General Permit for Storm Water Discharges Associated with Construction Activities, Order No. 99-08-DWQ, NPDES No. CAS000002. The main compliance requirement of the construction NPDES permits is the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The purpose of a SWPPP is to identify potential on-site pollutants and identify and implement appropriate stormwater pollution prevention measures to reduce or eliminate discharge of pollutants to surface water from stormwater and non-stormwater discharges during construction. Stormwater best management practices (BMPs) to be implemented during construction and grading, as well as post-construction BMPs, will be outlined in the SWPPP prepared for a proposed specific development project when construction is actually initiated in the future. Examples of BMPs include: detention or bioretention basins for capture and containment of sediments, use of silt fencing, sandbags, or straw bales to control runoff and identification of emergency procedures in case of hazardous materials spills. The future site-specific project proponent will be required to obtain a construction NPDES permit prior to initiating ground disturbing activities at a project site of greater than one acre.

Local

City of Highland General Plan

The following General Plan policies addressing hydrology and water quality are applicable to the project:

Public Services and Facilities Element: *Highland has a drainage system of improved, semi-improved, and unimproved flood control channels and creeks that are intended to prevent flooding and convey stormwater from the City to the Santa Ana River and then out to sea.....To address flood control issues, Highland has adopted a Master Storm Drain Plan derived from studies conducted by the San Bernardino County Flood Control District on drainage and flow patterns in the area.*

Public Services and Facilities Element: Goal 4.4

Maintain an effective drainage system that protects people and property from overflows and flood disasters.

Conservation and Open Space Element: *The Conservation and Open Space Element contains discussions of Water Supply, Water Quality, Watershed Protection, Groundwater Protection,*

Limiting Urban Runoff and Water Conservation. "Protecting Water quality involves managing watershed and groundwater resources and limiting discharges and urban-runoff. For Highland maintaining and preserving water quality is important not only for domestic consumption but also for the regional impacts caused through runoff.....One of the most important steps that cities can take towards improving water quality is limiting urban runoff.....To implement its obligations under the Area Wide Urban Storm Water Permit, the City has adopted a Municipal Storm Water Management Plan (MSWMP), which consists of a variety of measures, including prohibition or regulation of specific types of discharges, inspections, avoidance of sewage spills, public education, controls on new development and redevelopment, site maintenance practices and construction site management practices."

Open Space and Conservation Element: Goal 5.4

Continue to preserve and enhance the water quality and natural habitat of its waterways.

Open Space and Conservation Element: Goal 5.5

Continue to reduce urban runoff.

Open Space and Conservation Element: Goal 5.6

Monitor and strengthen Highland's water conservation practices.

Public Health, Safety, and Environmental Justice Element: *"Flooding in Highland generally occurs in the winter months when the region receives the most rain, but climate change may extend the flood hazard season.²⁸ Climate change is also predicted to increase the number of annual extreme rain events, when large amounts of rain falls over a short period of time. These events often do not allow the rain to soak into the ground and they overwhelm stormwater infrastructure... flood risk is dispersed across Highland but is most centralized in the southern portion of east Highlands, just south of Greenspot Road. This area has a 1% chance of flooding annually, which is also known as a 100-year flood zone. Much of the area south of Greenspot Road has been left as open space. This aids in allowing for natural drainage during extreme rain events."*

Public Health, Safety, and Environmental Justice Element: Goal 3

Minimize risks, such as loss of life, injury, property damage, and natural resource destruction from natural and human-caused hazards.

Public Health, Safety, and Environmental Justice Element: Policy 3.4

Ensure that public facilities and infrastructure have adequate capacity to respond to wildfires and other relevant hazard events.

Action 3.4a: Performance Standards. Apply fire unit deployment performance measures with future planning of fire stations.

Action 3.4b: Emergency Equipment. Consider the long-term maintenance needs of emergency equipment and facilities when developing the annual budget.

Action 3.4c: Storm Drain Capacity. Continue to ensure that existing and new storm drain and street capacities are adequate to manage a 100-year flood event.

Action 3.4d: New Public Facilities. The construction of new public facilities should occur outside of areas designated VHFHSZ when feasible. Existing public facilities in the VHFHSZ shall be retrofitted to be consistent with the current standards.

Public Health, Safety, and Environmental Justice Element: Goal 4

Maintain adequate emergency preparedness and response capabilities.

Public Health, Safety, and Environmental Justice Element: Policy 4.3

Prepare residential areas for flooding and wildfire.

Action 4.3a: Elevate and Anchor. Educate and encourage property owners in flood zones to elevate and anchor critical utilities, including electrical panels, propane tanks, sockets, wiring, appliances, and heating systems.

Action 4.3b: Sandbags. Implement a sandbag program available for residents in flood zones prior to heavy storms.

Action 4.3c: Fire Safe Communications. Prior to fire season, use outreach events and City communication resources to educate the public on how they can create a defensible space around their place of residence and evacuate in case of fire.

Action 4.3d: Require evacuation assessments on residential projects requiring an Environmental Impact Report in designated wildfire hazard severity zones.

No specific goals address hydrology and water quality in any other Chapter of the City's General Plan.

City of San Bernardino General Plan

The following General Plan policies addressing hydrology and water quality are applicable to the project:

Land Use Element: Goal 2.8

Protect the life and property of residents, businesses, and visitors to the City of San Bernardino from crime and the hazards of flood, fire, seismic risk, and liquefaction.

Housing Element: *Regarding Flood Control issues, the City states: Additional storm drain and flood control facilities... will be needed to convey the increased surface runoff, to protect residential properties not currently protected from 100-year storm flows and surrounding properties. Such will be the individual or joint responsibilities of subdivision developers.... Several watercourses go through the City, including the Santa Ana River, Cajon Creek, Lytle Creek, and numerous canyon drainage courses... However, the City estimates that less than 7% of the total vacant residential land area is affected by environmental constraints.*

Utilities Element: *San Bernardino's planning area encompasses 70 square miles, much of which is paved and impervious to stormwater... Water pollution is of national importance and the federal Clean Water Act established the National Pollutant Discharge Elimination System (NPDES) permit program to address the problem. The Clean Water Act requires that cities "effectively prohibit non-stormwater discharges into the storm sewers" and "require controls to reduce the discharge of pollutants to the maximum extent practicable." ...Flooding is also a very real issue in San Bernardino. We need to be aware of the potential for floods from our mountain canyons and streams and from urban runoff. To prevent flooding of the City, the capacity of the storm drain system must consistently be evaluated and improved as needed."*

Utilities Element: Goal 9.4

Provide appropriate storm drain and flood control facilities where necessary.

Safety Element: Goal 10.4

Minimize the threat of surface and subsurface water contamination and promote restoration of healthful groundwater resources.

Safety Element: Goal 10.5

Reduce urban run-off from new and existing development.

Safety Element: Goal 10.6

Protect the lives and properties of residents and visitors of the City from flood hazards.

Energy and Water Conservation Element: *“It is also important that we control discharges into our waterways to protect our water quality and the integrity of our groundwater. As detailed in the Utilities Element, any new construction and development in the City must comply with several regulations aimed at reducing discharges or runoff into our waterways... New projects must incorporate appropriate Best Management Practices (BMPs) to control the discharge of point source (these are readily identifiable inputs where waste is discharged to the receiving waters from a pipe or drain) and non-point source (discharges that occur over a wide area and are associated with particular land uses, such as urban and agricultural uses) pollutants both during construction and for the life of the project.*

Energy and Water Conservation Element: Goal 13.2

Manage and protect the quality of the City’s surface waters and ground water basins.

No specific goals address hydrology and water quality in any other Chapter of the City’s General Plan.

4.11.3 Existing Conditions: Hydrology and Water Quality

As an overview of drainage conditions within the project area, there are three major stream or drainage channels within or immediately adjacent to the AGSP project area. Refer to Figure 4.11-1, which shows the major streams and tributaries that discharge to the Santa Ana River. Please note that there are no stream channels that flow through the project area, i.e., from City Creek on the east to Twin Creek/Warm Creek on the west. The most consequential existing channel is the City Creek Bypass channel which flows from City Creek (located just west of Interstate 210 within the project area) across the whole project area to where it exits the project area just north of 3rd Street, west of Tippecanoe Avenue. It then flows west approximately a mile until it intersects with Twin Creek, which flows south to its confluence with the Santa Ana River. The natural City Creek channel forms the eastern boundary of the AGSP. Refer to Figure 4.11-2. It flows southwest approximately 1.5 miles where it also has its confluence with the Santa Ana River. The watershed that contributes surface flows into the City Creek Bypass channel is also shown on Figure 4.11-2. North-South streets from Tippecanoe east to Church Avenue in the area convey watershed flows into the Bypass channel, with a small area of the AGSP contributing direct flows into City Creek.

4.11.3.1 Surface Runoff and Flooding

The following information regarding drainage and flood hazards that affect the project area is abstracted from a report prepared by JLC Engineering & Consulting, Inc. (JLC Engineering). The report is titled “Preliminary Hydrology and Channel Design for City Creek By-Pass Channel.” A copy of this report is provided in Volume 2, Appendix 8a, of this Program Environmental Impact Report (PEIR).

The City Creek By-Pass Channel has been identified by San Bernardino County Flood Control District as a regional channel system that is part of Comprehensive Storm Drain Plan Number 6 (CSDP #6) that was prepared by Exponent Analysis dated August 2001. The purpose of the

study is to determine the peak flow rates for the City Creek By-Pass Channel based on the updated land use that has been proposed for the project area.

The channel system was proposed as a trapezoidal concrete-lined channel that had a base width of 40 feet and a depth of 5 feet. CSDP #6 established flow rates that ranged from 878 cubic feet per second at Palm Avenue to 1,618 cubic feet per second at Warm Creek (Twin Creek) Channel which is a soft bottom channel with wire-revetment to control lateral erosion. The existing By-Pass Channel does not have the capacity to convey runoff from the tributary area due to the undersized culverts that exist along the existing channel alignment. The existing runoff from the area drains in the east to west direction. The major streets that are located in the north to south direction behave like interceptor channels for surface runoff generated within the watershed. These streets convey runoff towards the City Creek By-Pass Channel. The overall tributary area (watershed) encompasses approximately 1,750 acres and has been illustrated in Figure 4.11-3 along with the City Creek By-Pass Channel. The City Creek Bypass channel design encompasses both the City of San Bernardino and the City of Highland.

JLC Engineering examined the existing and planned land uses for the overall area that is tributary to City Creek By-Pass Channel. JLC Engineering performed hydrology analyses that evaluated the land uses in the 1,750-acre watershed area. The hydrology analyses focused on developing flow rates at four nodal points at the following locations:

1. Victoria Avenue and City Creek By-Pass Channel (Node 108)
2. Sterling Avenue and City Creek By-Pass Channel (Node 109)
3. Tippecanoe Avenue and City Creek By-Pass Channel (Node 110)
4. Warm Creek Channel and City Creek By-Pass Channel (Node 111)

These nodal points were used to perform comparison analyses with the flow rate values used in CDSP #6.

Using the most current rainfall and other project area hydrology data available (please refer to pages 2, 3 and 4 of the Preliminary Hydrology study), the stormwater runoff was modeled for the City Creek By-Pass Channel. The Hydrology Map in Exhibit A of the Preliminary Hydrology study summarizes the parameters used in the hydrology model. Table 4.11-1 shows the peak flow rate and time of concentration based on the rational method hydrology. The Preliminary Hydrology study provides a separate table (Table 4.11-2) comparing the current flow rates developed as part of the study to the flow rates identified in the CSDP #6 Hydrology Map.

**Table 4.11-1
 PEAK FLOW RATE AND TIME OF CONCENTRATION**

Location	100-Year Flow Rate (ft³/s)	Time of Concentration (min)
Node 108	1,277	35.34
Node 109	1,277	46.08
Node 110	1,478	54.95
Node 111	1,477	63.61

**Table 4.11-2
 COMPARATIVE ANALYSIS BETWEEN FLOW RATES**

Location	100-Year Flow Rate (ft³/s)	CSDP #6 100-Year Flow Rate (ft³/s)
Node 108	1,363	1,338
Node 109	1,363 ⁽¹⁾	1,351
Node 110	1,637	1,591
Node 111	1,637 ⁽²⁾	1,618

Notes:

- (1) The hydrology model flow rate at Node 109 is 1271 ft³/s. Use upstream flow rate since the value is greater than the downstream flow rate.
- (2) The hydrology model flow rate at Node 111 is 1615 ft³/s. Use upstream flow rate since the value is greater than the downstream flow rate.

Based on the hydrology analyses performed for the watershed area tributary to City Creek By-Pass Channel, the flow rates developed for the study are within 2% to 3% of the flow rates developed for the CSDP #6 Study. JLC Engineering concluded that the CSDP #6 Study used land use assumptions that are similar to the land use assumptions that were part of the City of San Bernardino General Plan, City of Highland General Plan, and the IVDA Proposed Land Use Plan at buildout.

The current drainage infrastructure within the project area has not yet been modified to accommodate future runoff. The existing 100- and 500- year flood hazard zones are shown in Figure 4.11-4. The only flood hazard zone within the AGSP area is the immediate City Creek Bypass channel. In most cases surface runoff flows travel along north-south roadway shoulders in the AGSP and enter into the City Creek By-Pass Channel through culverts with insufficient capacity. To meet future flow demand, new drainage infrastructure will need to be installed.

4.11.3.2 Groundwater Resources

The following information is abstracted from the 2010 San Bernardino Valley Regional Urban Water Management Plan (RUWMP) Final report. This document evaluates the various water supply resources for the general area, with a focus on the San Bernardino Basin Area (SBBA). The SBBA traditionally refers to two groundwater basins: the Bunker Hill and Lytle Creek basins. The following information focuses on the groundwater resources of the east San Bernardino Valley. Refer to Figure 4.11-5 (Figure 2-1 of the RUWMP), which shows the groundwater basins in the San Bernardino area.

The SBBA was defined by and adjudicated in gross by the Western Judgment in 1969. The SBBA has a surface area of approximately 140.6 square miles and lies between the San Andreas and San Jacinto faults. The basin is bordered on the northwest by the San Gabriel Mountains and Cucamonga fault zone; on the northeast by the San Bernardino Mountains and San Andreas fault zone; on the east by the Banning fault and Crafton Hills; and on the south by a low, east facing escarpment of the San Jacinto fault and the San Timoteo Badlands. Alluvial fans extend from the base of the mountains and hills that surround the valley and coalesce to form a broad, sloping alluvial deposit plain in the central part of the valley. The SBBA encompasses the Bunker Hill subbasin (8-02.07 defined by DWR and also includes a small portion of the Yucaipa Basin (8-02.08) and Rialto-Colton Basin (8-02.04) as defined by DWR. The SBBA also encompasses surface water.

The Western Judgment established the natural safe yield of the SBBA to a total of 232,100 AF per year for both surface water diversions and groundwater extractions... Of this amount, agencies within the Valley District service area are allocated 167,238 AFY; agencies in Riverside County are allocated 64,862 AFY (excluding any specific groundwater banking performed by Riverside County agencies). San Bernardino agencies are allowed to extract more than 167,238 AFY from the SBBA, but extractions over 167,238 AF require import and recharge by Valley District of a like amount of water... Valley District has 211,323 AF of credit accumulated in the SBBA.

The SBBA is primarily recharged from infiltration of surface runoff from the San Bernardino and San Gabriel Mountains. The Santa Ana River, Mill Creek and Lytle Creek deliver approximately 60% of annual recharge to the Basin. Lesser contributions are supplied by Cajon Creek, San Timoteo Creek, and the intervening creeks flowing southward from the San Bernardino Mountains (such as City Creek). In addition, the Basin is also replenished by deep percolation of water from direct precipitation, percolation from imported water, and surface runoff percolated at spreading grounds.

Total groundwater storage capacity of the Bunker Hill Basin is estimated to be 5,976,000 acre-feet. Groundwater depth varies from greater than 100 feet downstream of the Seven Oaks Dam to rising groundwater at the San Jacinto Fault. This fault runs perpendicular (north to south) to the groundwater flow direction in the Bunker Hill Basin which is generally southwest. It functions as a partial groundwater barrier that causes the groundwater to rise on the east side of the fault. Recent borings (2018 by Southern California Geotechnical for the Eastgate facility at the Airport) determined groundwater levels to be below 50 feet ("Geotechnical Investigation Proposed Eastgate Building 1") based on four boring logs at this site. This sets a minimum depth to groundwater for the AGSP project area in general.

4.11.3.3 Water Quality

There is no specific data regarding groundwater quality beneath the project site since there are no known groundwater wells functioning within the project area. Although not directly indicative of actual groundwater quality beneath the project area, the East Valley Water District obtains the majority of its water supply from wells within the SBBA. Appendix 8b of Volume 2 to this DEIR indicates that the overall water quality (which includes treatment at certain locations) from SBBA groundwater wells meets the current federal and state drinking water quality standards ("2022 Consumer Confidence Report"). There are known locations within the SBBA (including the SBIA, former Norton Air Force Base) that contain contaminated plumes of groundwater. Most of these are from volatile organic compounds, such as TCE and PCE, but there is also some residual pollution from historic farming practices in the SBBA. No contaminated plumes are known to underlie the project area.

Information regarding the Santa Ana Regional Board's water quality designations for the general project area are provided below. The Santa Ana River is divided into "reaches" which begin where the River discharges into the Pacific Ocean. The project area is located in Reach 5 which extends from Seven Oaks Dam to the City of San Bernardino to the San Jacinto fault (Bunker Hill Dike), which marks the downstream edge of the Bunker Hill groundwater basin. With the exception of periods of precipitation or snowmelt, Reach 5 of the Santa Ana River channel is dry. The Regional Board has designated the following Beneficial Uses (Refer to Tables 4.11-3 and 4.11-4) for Reach 5: MUN, AGR, GWR, REC1, REC2, WARM, WILD and RARE. Similar information is provided for Twin (Warm) Creek (valley floor). The City Creek Bypass channel is not identified in the list of surface water bodies assigned Beneficial Uses. The Beneficial Uses identified for the

Bunker Hill Basins are: MUN, AGR, IND, and PROC. Table 4.11-5 lists the Water Quality Objectives for Reach 5.

**Table 4.11-3
 IDENTIFICATION OF RECEIVING WATERS**

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Warm Creek	No data	REC1, REC2, WARM, WILD	Santa Ana River RARE designation is closest
Santa Ana River, Reach 5	None Listed	MUN, AGR, GWR, REC1, REC2, WARM, WILD, and RARE	Occurs within Reach 5

**Table 4.11-4
 ABBREVIATION DEFINITIONS FOR BENEFICIAL USES**

Abbreviation	Definition and Use
MUN	Municipal and Domestic Supply waters are used for community, military, municipal or individual water supply system. These uses may include, but are not limited to, drinking water supply.
IND	Industrial Service Supply waters are used for industrial activities that do not depend primarily on water quality. These uses may include, but are not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, and oil well pressurization.
PROC	Industrial Process Supply waters are used for industrial activities that depend primarily on water quality. These uses may include, but are not limited to, process water supply and all uses of water related to produce manufacture or food preparation.
AGR	Agricultural Supply waters are used for farming, horticulture or ranching. These uses may include, but are not limited to, irrigation, stock watering, and support of vegetation for range grazing.
GWR	Groundwater Recharge waters are used for natural or artificial recharge of groundwater for purposes that may include, but are not limited to, future extractions, maintaining water quality, or halting saltwater intrusion into freshwater aquifers.
REC1	Water Contact Recreation waters are used for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses may include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfacing, whitewater activities, fishing, and use of natural hot springs.
REC2	Non-Contact Water Recreation waters are used for recreational activities involving proximity to water, but not normally involving body contact with water where ingestion of water would be reasonably possible. These uses may include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tide pool and marine life study, hunting, sightseeing, and aesthetic enjoyment in conjunction with the above activities.
WARM	Warm Freshwater Habitat waters support warm water ecosystems that may include, but not limited to, preservation and enhancement of aquatic habitats, vegetation, fish and wildlife, including invertebrates.
COLD	Cold Freshwater Habitat waters support cold water ecosystems that may include, but not limited to, preservation and enhancement of aquatic habitats, vegetation, fish and wildlife, including invertebrates.
WILD	Wildlife Habitat waters that support terrestrial ecosystems including, but not limited to, preservation and enhancement of vegetation and prey species used by waterfowl and other wildlife.

Abbreviation	Definition and Use
RARE	Rate, Threatened or Endangered Species waters that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under State or Federal law as rare, threatened or endangered.
SPWN	Spawning, Reproduction and/or Early Development waters that support high quality aquatic habitats suitable for reproduction and early development of fish and wildlife.

Source: Basin Plan, Chapter 3

Table 4.11-5 lists the Water Quality Objectives for Reach 5 of the River. Numeric objectives have not been established for Warm Creek; Basin Plan narrative objectives apply. Numeric objectives have not been established for City Creek Bypass; therefore, it is assumed that the narrative objectives apply for this stream channel. The Water Quality Objectives for the Bunker Hill “A” Ground Water Management Zone are as follows: TDS = 310 milligrams per liter (mg/L) and Nitrate as Nitrogen = 2.7 mg/L. Twin (Warm) Creek is not identified in the list of impaired surface water bodies and the Santa Ana River, Reach 5 has no known listed water quality impairment.

**Table 4.11-5
 WATER QUALITY OBJECTIVES FOR WATER BODIES WITHIN OR DOWNSTREAM OF THE PLAN AREA**

Watershed / Stream Reach	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Sodium (mg/L)	Chloride (mg/L)	Total Inorganic Nitrogen (mg/L)	Sulfate (mg/L)	Chemical Oxygen Demand (mg/L)
Santa Ana Reach 5	300	190	30	20	5	60	25

4.11.4 Thresholds Of Significance

According to Appendix G of the CEQA Guidelines and the City’s Initial Study Checklist, 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 groundwater quality?
- HYD-2 Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such 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 rive or through the addition of impervious surfaces, in a manner which would:
 - (i) Result in substantial erosion or siltation onsite or offsite.
 - (ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite?
 - (iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?; or,
 - (iv) Impede or redirect flood flows?
- 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?

4.11.5 Methodology

Technical reports were prepared to analyze drainage impacts of the proposed project within the project area and surrounding environment. The analyses were prepared in accordance with the San Bernardino County Flood Control District Hydrology Manual. Hydraulic analyses were performed for the pre-project and post-project channel to determine the pre-project and post-project flooding limits. The County's Hydrology Manual was used to develop the hydrological parameters for the unit hydrograph analyses, and the calculations were performed using the computer program developed by Civil CADD/Civil Design. Broader scope hydrology issues (such as flood hazards and existing water quality) were evaluated based on review of the two City General Plans and the Regional Board's Santa Ana River Basin Water Quality Control Plan.

4.11.6 Environmental Impacts

HYD-1 Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

The only three sources of potential water quality degradation from the project area are: stormwater runoff that will transport non-point source pollutants from future development within the AGSP project area; random accidental discharges of pollutants that reach the channels that carry surface runoff; and the discharge of domestic wastewater from future development within the AGSP project area. The domestic wastewater will be delivered to a wastewater treatment plant for treatment. Any point source industrial wastewater will be evaluated and pretreatment may be required prior to discharge to the sewer collection system. Wastewater is presently delivered to the San Bernardino Municipal Water Department's (Department) Water Reclamation Plant (WRP) and polished in the Department's RIX facility located in Colton. The WRP/RIX discharges currently meet the current waste discharge requirements imposed by the Santa Regional Water Quality Control Board. Thus, any wastewater generated by AGSP project area discharges will not result in substantial degradation of surface or groundwater quality or violate any standards or waste discharge requirements. For a more detailed discussion of this issue refer to Section XVIII of this document.

It is probable the East Valley Water District's Sterling Natural Resource Center wastewater treatment plant will be completed and placed in operation in the near future. This WRP will capture most, if not all, of the municipal wastewater discharges from the City of Highland portion of the AGSP in the future. It is assumed that this WRP will meet waste discharge requirements that will be imposed by the Regional Board once it is in operation. Thus, no violation of water quality standards or waste discharge requirements is forecast to result from the future discharge of domestic wastewater to the SNRC. This assumption is based on the fact that the Regional Board will enforce discharge requirements and prevent and correct any violations at either treatment facility.

Accidental discharges are random events that require immediate attention to minimize the damage to the environment, including water quality downstream of an accidental spill. Most spills are small and local and can be remediated (removed from the environment to a level that meets regulatory standards) with local means. Since the project area has so few streams and streams rarely carry surface water in the non-winter months (particularly Reach 5 of the Santa Ana River), the potential for transport of accidentally released surface pollution is considered low. This does

not mean that a rare event cannot cause widespread contamination, but the potential for this to occur is generally low within the project area with existing modern rules and regulations regarding reporting and addressing accidental spills as quickly as possible. No mitigation is proposed or required to address this issue due to the existing response capabilities within the two cities and the County within the project area.

As described above, stormwater runoff from individual property is considered non-point source runoff and reducing pollution in this source of water pollution has been the focus of water quality management agencies since 1991. Pollutants of concern that are expected to be incorporated into the stormwater runoff include sediment/turbidity, nutrients (fertilizers); organic compounds (especially herbicides and pesticides), oxygen demanding substances, trash, and bacteria and viruses (often generated from animal fecal matter). The discharges of stormwater runoff from the onsite stormwater management facilities and treatment units will be directed south to the City Creek Bypass channel; then west to the Twin (Warm) Creek channel; and finally, to the Santa Ana River. The future stormwater discharges to the watershed have a potential to degrade water quality or to contribute to violations of water quality standards in the downstream surface water bodies and watershed.

The proposed AGSP is required to implement the water quality standards and Best Management Practice (BMP) design guidelines as outlined in the Technical Guidance Manual (TGM) for Water Quality Management Plans for San Bernardino County. Meeting this mandatory requirement will address the current Water Quality Management Plan (WQMP) requirements established by the Santa Ana Regional Water Quality Control Board's Order No. R8-210-0036. It should be noted that the project will implement updated technical permits that are approved during final engineering. The TGM requires projects to treat runoff emanating from future proposed developments in order to treat constituents and contaminants that may cause water quality degradation downstream at receiving waters identified by the Regional Board. The BMPs that will be implemented by future projects will minimize or eliminate the degradation of surface and groundwater by implementing infiltration or biofiltration basin based BMPs as outlined in the TGM.

In order to meet the current and future Municipal Separate Stormwater Sewer (MS4) stormwater quality discharge requirements, the future developers will be required to install treatment systems (Best Management Practices) as identified in the preceding evaluation. Mitigation measure (MM) **HYD-1** is provided to ensure that during construction the Storm Water Pollution Prevention Plan (SWPPP) will be implemented to control any discharges from the site to minimize potential water quality degradation during this stage of development. MM **HYD-2** is also identified to ensure that the project-specific WQMP will be implemented in a manner comparable to that identified for the watershed. The structural and operational BMPs identified in the TGM are incorporated by reference as mandated in the TGM. The future construction and occupancy activities will require permits (SWPPP and WQMP) to meet water quality requirements (State and County, as outlined above). As each specific development proposal is submitted for approval in the future in accordance with Specific Plan, it must implement the components of the project-specific WQMP that applies.

HYD-1 The future developer shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP), which specifies Best Management Practices that will be implemented to prevent construction pollutants from contacting stormwater and with the performance standard of keeping all products of erosion from moving offsite. The SWPPP shall be developed with the goal of achieving a reduction in pollutants both during and following construction to control urban runoff to the maximum extent practicable based on available,

feasible best management practices. The SWPPP and the monitoring program for the construction projects shall be consistent with the requirements of the latest version of the State's General Construction Activity Storm Water Permit and NPDES No. CAS618033, Order No. R8-210-0036 for projects within San Bernardino County or the permit in place at the time of construction.

HYD-2 ***The Project-Specific Water Quality Management Plan (WQMP) which defines infiltration basins (open space basins or subsurface), bioretention basins and treatment units as permanent Best Management Practices shall be implemented to prevent long-term surface runoff from discharging pollutants from site on which construction has been completed. The WQMP shall be implemented with the goal of achieving a reduction in pollutants following construction to control urban runoff pollution to the maximum extent practicable based on available, feasible best management practices at the time of construction. The stormwater discharge from the project site shall be treated to control pollutant concentrations for all pollutants, but especially for those identified pollutants that impair downstream surface water quality (Santa Ana River) at the time construction occurs. Source Control BMPs reduce the potential for urban runoff and pollutants from coming into contact with one another. Source Control BMPs that may be incorporated into the project are described in County's TGM.***

During construction a variety of BMPs are available to control generation of sediment and control of any pollutant discharges (trash and petroleum substances) from a site under construction greater than one acre. These prospective BMPs include: silt fencing, sand bags, fiber rolls, spray-on hydroseed cover, mulch, housekeeping measures to control trash and any accidental spills during construction, and small sediment basins that can contain runoff from areas under active construction. MM **HYD-1** will ensure implementation of adequate BMPs during construction through implementation of a project specific SWPPP, ensuring that stormwater discharges from the project site during construction activities will be controlled to a level that do not violate any water quality standards or substantially degrade water quality at the time in the future when the proposed project is implemented.

Based on implementing the short- and long-term BMPs in a manner that will minimize or eliminate potential cumulative contributions of pollutants to future surface water discharges, the proposed project can be implemented without causing substantial degradation of surface or groundwater quality downstream of the project site. This includes implementation of the long-term BMPs that can control discharges of pollutants that could cumulatively contribute to the identified impairments in downstream receiving waters, including nutrients, pathogens, and pesticides.

During periods when water is being stored in the infiltration basins or bioretention basins, it is essential that these surface water bodies be managed in a manner to sustain both water quality objectives. This can be achieved through the preparation of an Infiltration Basin / Bioretention Basin Management Plan that shall establish ongoing management actions required to achieve these applicable water quality standards. Typical management actions can include oxygenation of the water body; control of sediment accumulation; and control of nutrients flowing into the basin to minimize the potential for a basin to support vectors. With implementation of the mitigation identified above, it will be feasible to meet water quality standards at the time each proposed site-specific project is implemented in the future and this can be accomplished without causing substantial degradation of onsite or downstream water quality or violation of any water quality or public health standards. Therefore, the potential impact under this issue is considered **less than significant with mitigation**.

HYD-2 Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?

As the aerial photo in Figure 4.11-6 illustrates, the AGSP project area is about 60 percent developed and 40% undeveloped. However, with a few exceptions it is anticipated that the whole of the project area (approximately 678.2 acres) will be developed/redeveloped under the proposed AGSP with a mix of Business Park uses (offices, industrial and commercial uses). When it is completed, it is estimated that more than 70% of the AGSP project area will be developed with impervious surfaces (including roadways), with the remainder allocated to landscaped open space spread throughout the project area and the City Creek Bypass channel.

There are several ways in which implementation of the proposed AGSP could impact groundwater resources and/or interfere with groundwater recharge in a manner that could impede sustainable groundwater management of the Basin. In one instance implementation of AGSP projects will create new demand for groundwater resources for both landscape maintenance and direct consumption. In the second instance implementation of AGSP projects will increase impervious surfaces within the project area compared to the existing environmental setting. The project does not propose to drill any wells or directly extract groundwater, and the depth of the groundwater table is too great to expose any groundwater to the atmosphere during future site development, including grading in the AGSP project area and installation of offsite infrastructure.

A key infrastructure component of the AGSP project is the need to implement the ultimate design for City Creek Bypass channel which extends from Twin (Warm) Creek (just east of Waterman Avenue and outside of the AGSP), to just beyond Victoria Avenue within the AGSP project area. Refer to Figure 4.11-2, which shows the alignment of the City Creek Bypass channel. The channel has two potential alternatives for the design of the channel side slopes; however, both alternatives implement the use of an earthen channel bed which will promote continued groundwater infiltration, which is consistent with the channel's current design. Moreover, as part of the TGM design criteria and implementation of Low Impact Development (LID) designs, future projects within the AGSP project area will be required to implement onsite infiltration BMPs to both treat water quality of collected runoff and control post-development runoff to current discharge volumes. Although mandated by the TGM, mitigation is also identified in this section of the Draft EIR to perform infiltration feasibility analyses to ascertain the use of infiltration type BMPs. Based on the underlying soils in the AGSP (refer to the Biology Section of this document), infiltration is considered generally feasible throughout the project area. The use of infiltration-type BMPs will promote groundwater recharge and are forecast to increase groundwater supplies relative to the existing conditions in the AGSP due to the infiltration and storage of runoff when compared to the existing condition, which has limited infiltration infrastructure in place.

Thus, a small portion of the runoff that would have left the properties within the project area historically would be captured and percolated. With implementation of the surface water quality mitigation, specifically MMs **HYD-1** and **HYD-2**, above, as well as MM **HYD-3** outlined below, the proposed project will not cause significant adverse impacts to groundwater supplies. This is because there is little or no shallow groundwater immediately beneath the project area and the water quality measures will reduce potential water quality pollutants in percolating surface water to a less than significant impact level.

HYD-3 Future projects implemented within the AGSP project area shall submit an Infiltration Feasibility Analysis and a Low Impact Development drainage design to the local jurisdiction in conjunction with the draft WQMP. The

agency shall review these two studies, provide feedback and guidance, and approve final versions of both studies as part of the project specific WQMP. The developer shall implement/install the onsite drainage and water quality design features in the approved version of the studies. Adjacent drainage infrastructure consistent with CSDP No. 6 shall be installed by future AGSP projects as part of the proposed project.

The analysis in the Utilities Section of this Draft EIR identifies adequate water supply capability of the East Valley Water District (EVWD) to meet the AGSP water future water demand. A majority of EVWD's water supply portfolio includes groundwater from within its service area. The Regional Urban Water Management Plan indicates that EVWD can manage the future water demand from the project without incurring a significant adverse impact. This may include purchase of imported water from the San Bernardino Valley Municipal Water District and percolation of imported water to offset pumping from the SBBA groundwater basin. Thus, within the currently available sources of water supply, EVWD does not forecast any significant adverse impact from the proposed project's contribution to cumulative demand for groundwater within the EVWD's service area.

Thus, impacts will be **less than significant with mitigation**.

HYD-3 Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or rive or through the addition of impervious surfaces, in a manner which would:

(i) Result in substantial erosion or siltation onsite or offsite?

As described in the Existing Conditions setting, the AGSP project area is not within a 100-year flood hazard area and within the local watershed (refer to Figure 4.11-4) the stormwater runoff flows from the north to the south, ultimately discharging into the City Creek Bypass channel or directly into the Twin Creek/Warm Creek channel. As shown on Figure 4.11-4, the City Creek Bypass channel is identified as being within the 100-year flood hazard area. Although the future infrastructure required to convey flows to the channel have not yet been installed, the AGSP will require future developers to support installation of the requisite build-out drainage system or functional equivalent based on final site plans. The future storm drain system within the AGSP project area is identified in the Comprehensive Storm Drain Plan (CSDP) No. 6. The CSDP No. 6 is a master drainage plan design concept that was prepared by the San Bernardino County Public Works-Flood Control Planning Division. Figures 4.11-7 through 4.11-10 contain annotations describing the future drain facilities as developed by Mr. Castaneda, and illustrate the proposed channel design. The purpose of the master drainage plan is to provide a storm drain infrastructure solution to resolve potential flooding issues for the regional area based on a built-out land use condition as shown within the General Plans approved by the cities of Highland and San Bernardino. The storm drain infrastructure identified in CSDP No. 6 have been designed to do the following:

- Perpetuate flow patterns similar to the existing condition.
- Recommend storm drain systems to provide local flood protection for a 100-year storm event.
- Collect runoff through the use of the recommended storm drain facilities and deliver runoff to downstream flood control regional channel systems that have been designed to convey runoff for a 100-year storm event.
- The CSDP No. 6 provides the required storm drain system to collect and direct flows to adequately sized flood control channels.

The “Preliminary Hydrology and Channel Design for City Creek By-Pass Channel” study prepared by JLC Engineering & Consulting, Inc. (“JLC”, see Appendix 8a of Volume 2 to this DEIR) documents the volume of storm water runoff from full development of the AGSP project area is essentially the same as originally forecast. Thus, in addition to installation of onsite drainage management systems and adjacent offsite drainage system conveyance facilities (MM **HYD-3**), the AGSP will require that the City Creek By-Pass channel be completed soon after development within the AGSP is initiated. The AGSP will require the implementation of the 6-C1-00 identified in the CSDP#6 to provide flood protection for the AGSP area. Refer to Figures 4.11-11 and 4.11-12 which identify the City Creek Bypass channel as 6-C1-00. It should be noted that the City of Highland has commenced the Plan, Specification and Estimate (PS&E) process for the Victoria Storm Drain Improvement plans which ties into the City Creek Bypass channel. The Victoria Storm Drain is equivalent to 6-C1-06 identified in CSDP#6. The Victoria Storm Drain is located along Victoria Avenue and commences at 3rd Street on the south and terminates at 9th Street. The storm drain varies in size from a 4’x8’ reinforced concrete box (RCB) to a 48” diameter storm drain. This system will resolve flooding for the regional area that will benefit the AGSP area by intercepting flows that emanate from a drainage area east of Victoria Avenue.

To ensure the City Creek By-Pass channel can be constructed in a timely manner, the IVDA will coordinate with the cities and County Flood Control District to establish a funding mechanism (Community Facilities District or comparable mechanism) to complete the channel based on the JLC design or a comparable design contained in the “Preliminary Hydrology” report. The following mitigation measure shall be implemented:

HYD-4: The IVDA shall coordinate and combined with the two cities (Highland and San Bernardino) the CSDP No. 6 City Creek By-Pass channel design shall be implemented in order to receive stormwater generated from within the identified watershed. The final design shall receive approvals from San Bernardino County and other agencies with interest (such as the Regional Board) and be under construction and implemented from Victoria to the Twin (Warm) Creek channel by year 5 of the Plans authorization or before 2.5 million square feet off development has occurred within the AGSP project area.

Through implementation of MMs **HYD-1** through **HYD-4**, combined with the flat topography of the AGSP and permeable soils, the impacts relating to soils and erosion onsite or downstream of future development will be **less than significant with mitigation**.

HYD-3 Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

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

Through the implementation of MMs **HYD-1** through **HYD-4**, combined with the flat topography of the AGSP and permeable soils, the impacts resulting from implementing the AGSP are not forecast to increase surface runoff in a manner which would result in flooding onsite or offsite. Thus, the future development impact under this environmental issue will be **less than significant with mitigation**.

HYD-3 Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or rive or through the addition of impervious surfaces, in a manner which would:

- (iii) **Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?; or,**

Through implementation of MMs **HYD-1** through **HYD-4**, the impacts resulting from implementing the AGSP are not forecast to exceed the capacity of the existing or planned stormwater drainage system. This finding is substantiated by the Preliminary Hydrology study provided in Appendix 8a of Volume 2 to this DEIR. Similarly, the same mitigation measures will ensure that substantial additional sources of polluted runoff are not generated from implementation of the AGSP. Thus, the future development impact under this environmental issue will be **less than significant with mitigation**.

HYD-3 Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

- (iv) **Impede or redirect flood flows?**

The proposed project will not modify the paths of stormwater flow within the project area. Drainage infrastructure will be installed on future project sites and conveyed to the City Creek Bypass channel along or under existing roadways (where surface runoff currently flows) or in the CSDP No. 6 drainage infrastructures shown on Figures 4.11-11 and 4.11-12. Through implementation of MMs **HYD-1** through **HYD-4**, the impacts resulting from implementing the AGSP are not forecast to impede or redirect flood flows. Thus, the future development impact under this environmental issue will be **less than significant with mitigation**.

HYD-4 Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Based on the Safety elements of both City General Plans, the AGSP project area is not subject to either tsunami or seiche risks because there is no large body of water in the vicinity of the project area to generate either type of event. The AGSP project area could be subject to flood hazards associated with the failure of the Seven Oaks Dam. The area subject to such failure is identified on Figure 4.11-13 (Figure S-2) of the San Bernardino General Plan and it encompasses the AGSP project area. According to the General Plan, the dam was designed to resist an earthquake measuring 8.0 on the Richter scale. This fact, combined with the further assumption that the water stored would be at a maximum makes the potential for dam inundation an extremely low probability event. Finally, most pollutants, including hazardous materials, would be stored inside of structures and the potential for pollutants or contaminants to be incorporated and transported due to inundation is considered to be a **less than significant impact**.

HYD-5 Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The project site is located in the Upper Santa Ana Valley-San Bernardino (SBBA referenced above) groundwater basin, which has been designated very low priority by the Sustainable Groundwater Management Act (SGMA).¹ The SGMA empowers local agencies to form Groundwater Sustainability Agencies (GSAs) to manage basins and requires GSAs to adopt Groundwater Sustainability Plans (GSPs) for crucial groundwater basins in California. The SGMA “requires governments and water agencies of high and medium priority basins to halt overdraft

¹ <https://gis.water.ca.gov/app/bp-dashboard/final/>

and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, that will be 2040. For the remaining high and medium priority basins, 2042 is the deadline.”² Given that the project is located within a basin that is considered very low priority, no conflict or obstruction of a sustainable groundwater management plan is anticipated. As such, the project would not conflict with a sustainable groundwater management plan. Water consumption and effects in the basin indicate that the proposed project’s water demand is considered to be minimal in the context of the available water in the basin.

Thus, through implementation of MMs **HYD-1** through **HYD-4**, the impacts resulting from implementing the AGSP are not forecast to conflict or prevent implementation of a water quality control plan or a sustainable groundwater management plan. Thus, the future development impact under this environmental issue will be **less than significant with mitigation**.

4.11.7 Mitigation Measures

The following mitigation measures shall be implemented in conjunction with future AGSP projects.

HYD-1 *The future developer shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP), which specifies Best Management Practices that will be implemented to prevent construction pollutants from contacting stormwater and with the performance standard of keeping all products of erosion from moving offsite. The SWPPP shall be developed with the goal of achieving a reduction in pollutants both during and following construction to control urban runoff to the maximum extent practicable based on available, feasible best management practices. The SWPPP and the monitoring program for the construction projects shall be consistent with the requirements of the latest version of the State's General Construction Activity Storm Water Permit and NPDES No. CAS618033, Order No. R8-210-0036 for projects within San Bernardino County or the permit in place at the time of construction.*

HYD-2 *The Project-Specific Water Quality Management Plan (WQMP) which defines bioretention basins and treatment units as permanent Best Management Practices shall be implemented to prevent long-term surface runoff from discharging pollutants from site on which construction has been completed. The WQMP shall be implemented with the goal of achieving a reduction in pollutants following construction to control urban runoff pollution to the maximum extent practicable based on available, feasible best management practices at the time of construction. The stormwater discharge from the project site shall be treated to control pollutant concentrations for all pollutants, but especially for those identified pollutants that impair downstream surface water quality at the time construction occurs. Source Control BMPs reduce the potential for urban runoff and pollutants from coming into contact with one another. Source Control BMPs that may be incorporated into the project are described in County’s TGM.*

HYD-3 *Future projects implemented within the AGSP project area shall submit an Infiltration Feasibility Analysis and a Low Impact Development drainage design to the local jurisdiction. The agency shall review these two studies, provide feedback and guidance, and approve final versions of both studies. The developer shall implement/install the onsite drainage and water quality design features in the approved version of the studies. Adjacent drainage*

² <https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management>

infrastructure consistent with CSDP No. 6 shall be installed by future AGSP projects as part of the proposed project.

HYD-4 *The IVDA shall coordinate and combined with the two cities (Highland and San Bernardino) the CSDP No. 6 City Creek By-Pass channel design shall be implemented in order to receive stormwater generated from within the identified watershed. The final design shall receive approvals from San Bernardino County and other agencies with interest (such as the Regional Board) and be under construction and implemented from Victoria to the Twin (Warm) Creek channel by year 5 of the Plans authorization or before 2.5 million square feet off development has occurred within the AGSP project area.*

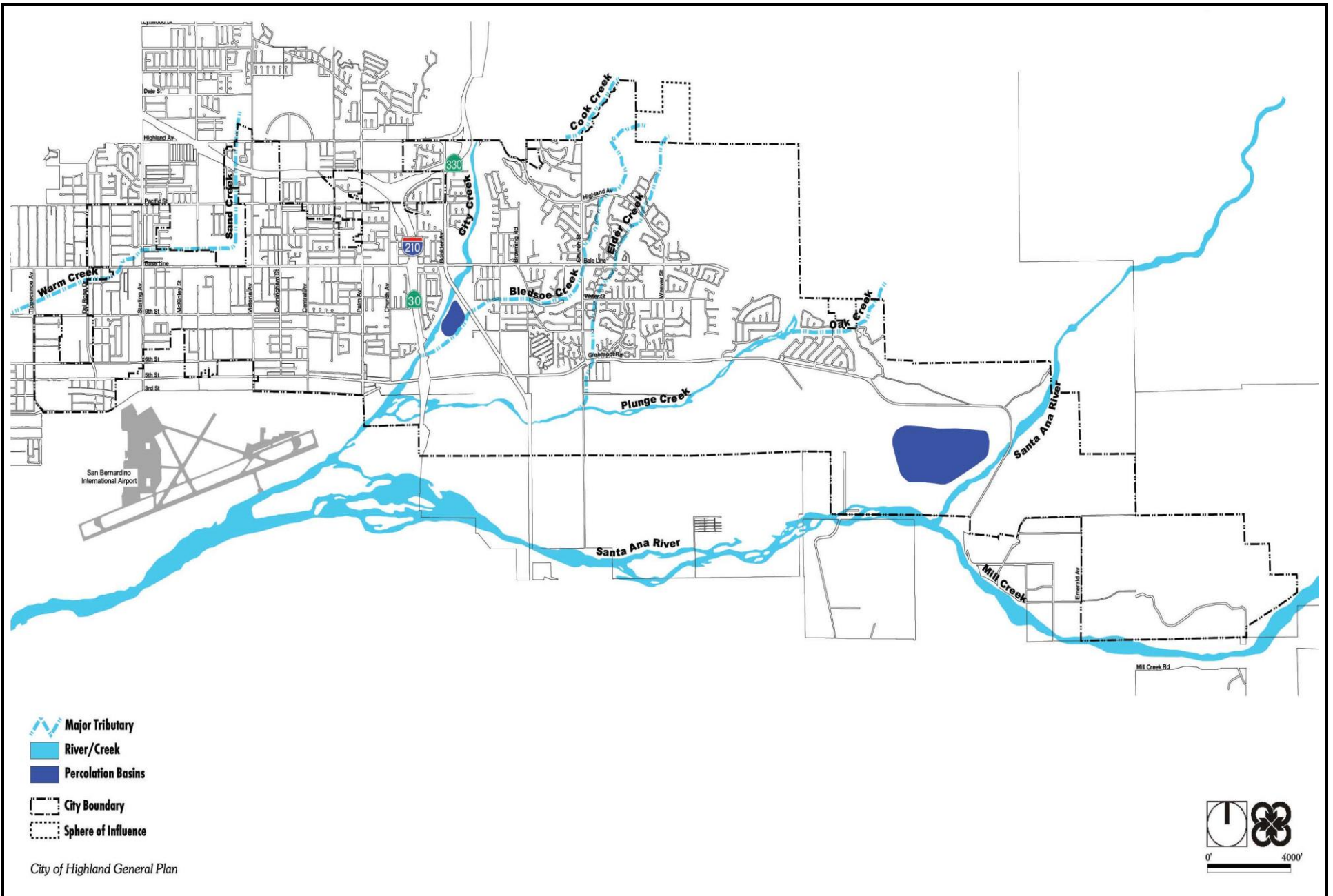
4.11.8 Cumulative Impacts

The proposed project has been evaluated as having a less than significant potential to cause significant flood hazards and a less than significant potential to substantially degrade water quality onsite and downstream with implementation of the preceding four mitigation measures. Due to the small size of the watershed that contributes to the City Creek Bypass channel; the fact that all other new projects in the watershed will have to comply with SWPPP and WQMP requirements of the TGM; and the fact that the AGSP constitutes the majority of acreage in the watershed, the potential for significant hydrology or water quality impacts is to less than significant. With implementation of the proposed stormwater management design, as outlined in the Preliminary Hydrology Study and the above mitigation measures, future stormwater runoff after development of the project site is not forecast to make a cumulatively considerable contribution to downstream flood hazards and/or water quality degradation in the Santa Ana River Watershed. This conclusion is based on the findings that the proposed mitigation and design measures will not substantially increase runoff from the AGSP project area and will provide adequate attenuation of water pollutants in runoff from this project area so as not to make a cumulatively considerable contribution to the runoff volume or water pollution within the local watershed and more broadly within the downstream Santa Ana River channel. Cumulative hydrology and water quality impacts are less than significant.

4.11.9 Significant and Unavoidable Impacts

As determined above, no significant and unavoidable impacts relating to hydrology or water quality will occur as a result of implementing the AGSP.

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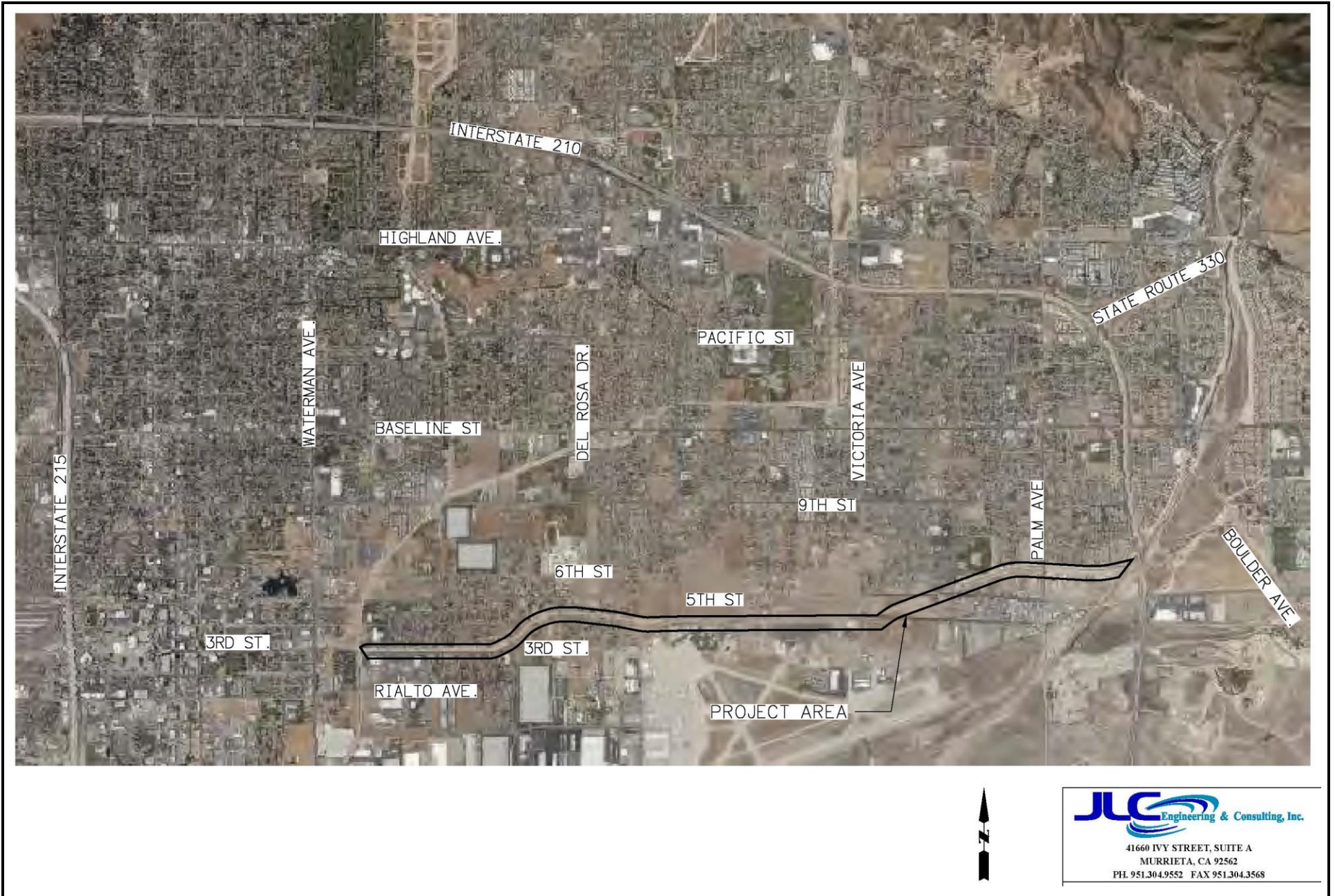


SOURCE: City of Highland General Plan

FIGURE 4.11-1

Tom Dodson & Associates
 Environmental Consultants

Major Tributaries



SOURCE: JLC Engineering & Consulting, Inc.

FIGURE 4.11-2

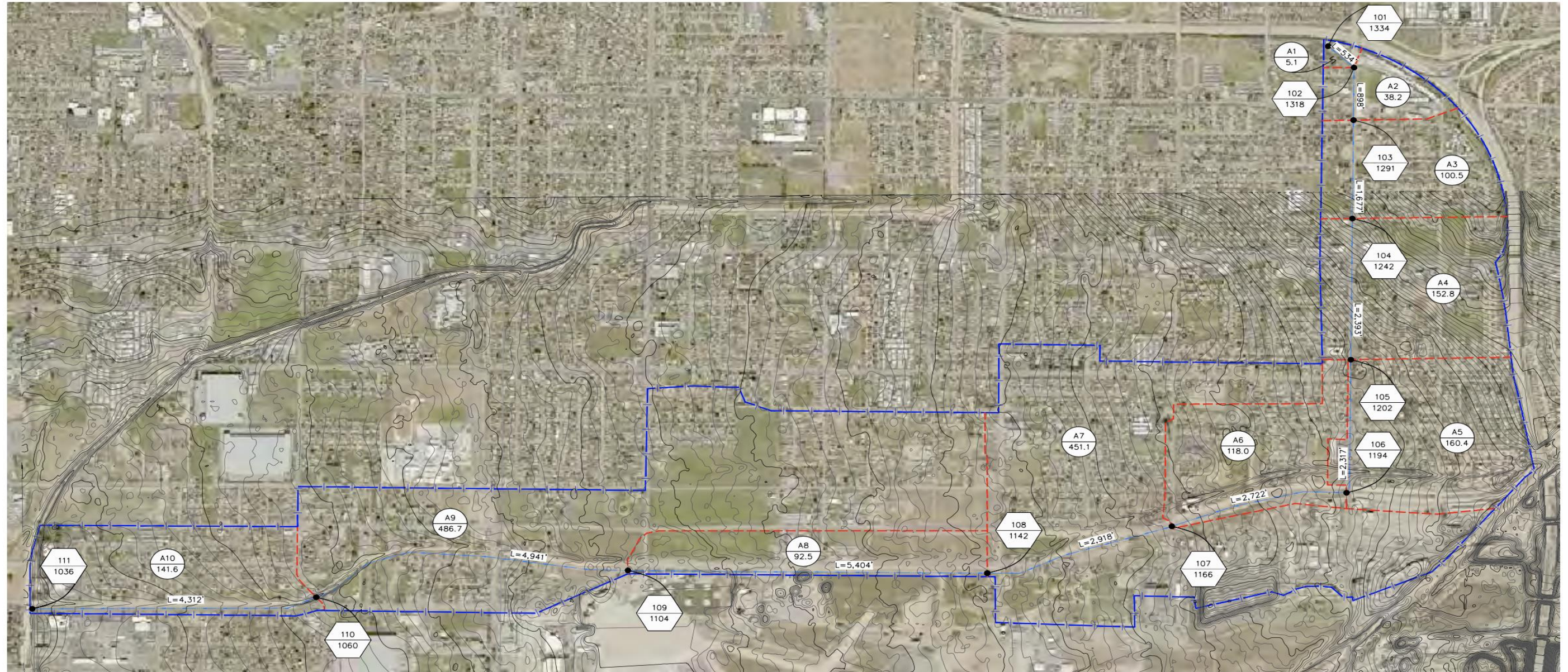
Tom Dodson & Associates
 Environmental Consultants

Alignment of City Creek Bypass Channel







IVDA 3RD AND 6TH STREET SPECIFIC PLAN

COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA

TRIBUTARY WATERSHED BOUNDARY



LEGEND:

 X.X X.X	NODE/CONCENTRATION POINT FLOWLINE ELEVATION	 FLOW PATH
 XXX X.X	APPROXIMATE INVERT ELEVATION	 WATERSHED SUB-BOUNDARY
 L=XXX'	SUB AREA ACRES	 WATERSHED BOUNDARY
	FLOW DISTANCE	

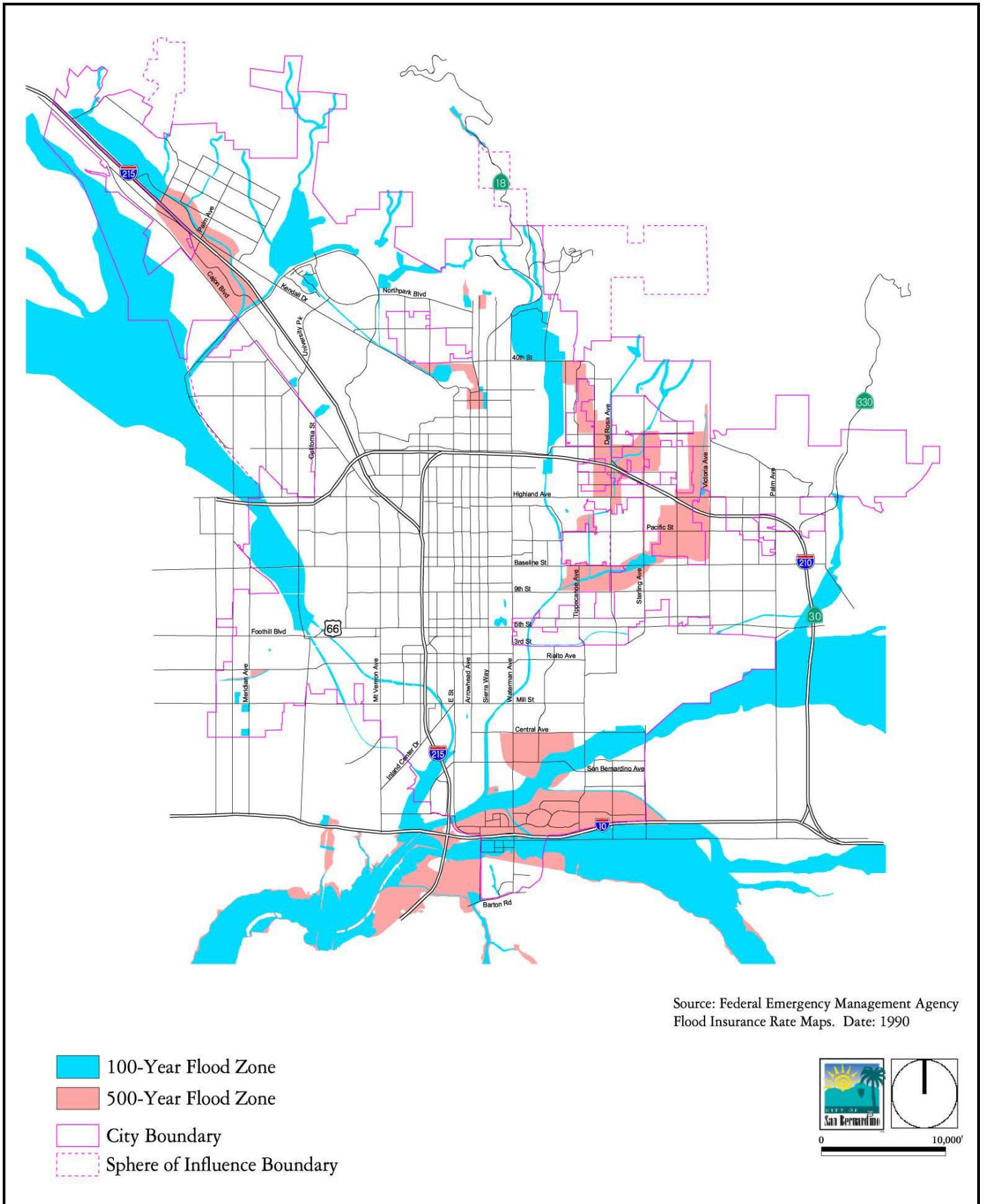
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 Last Opened: Apr 14, 2020 - 5:19pm by bwlzren


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EXHIBIT "A"
3RD AND 6TH SP
TRIBUTARY WATERSHED
BOUNDARY

SOURCE: JLC Engineering & Consulting, "Preliminary Hydrology and Channel Design for City Creek By-Pass Channel" dated April 20, 2020

FIGURE 4.11-3



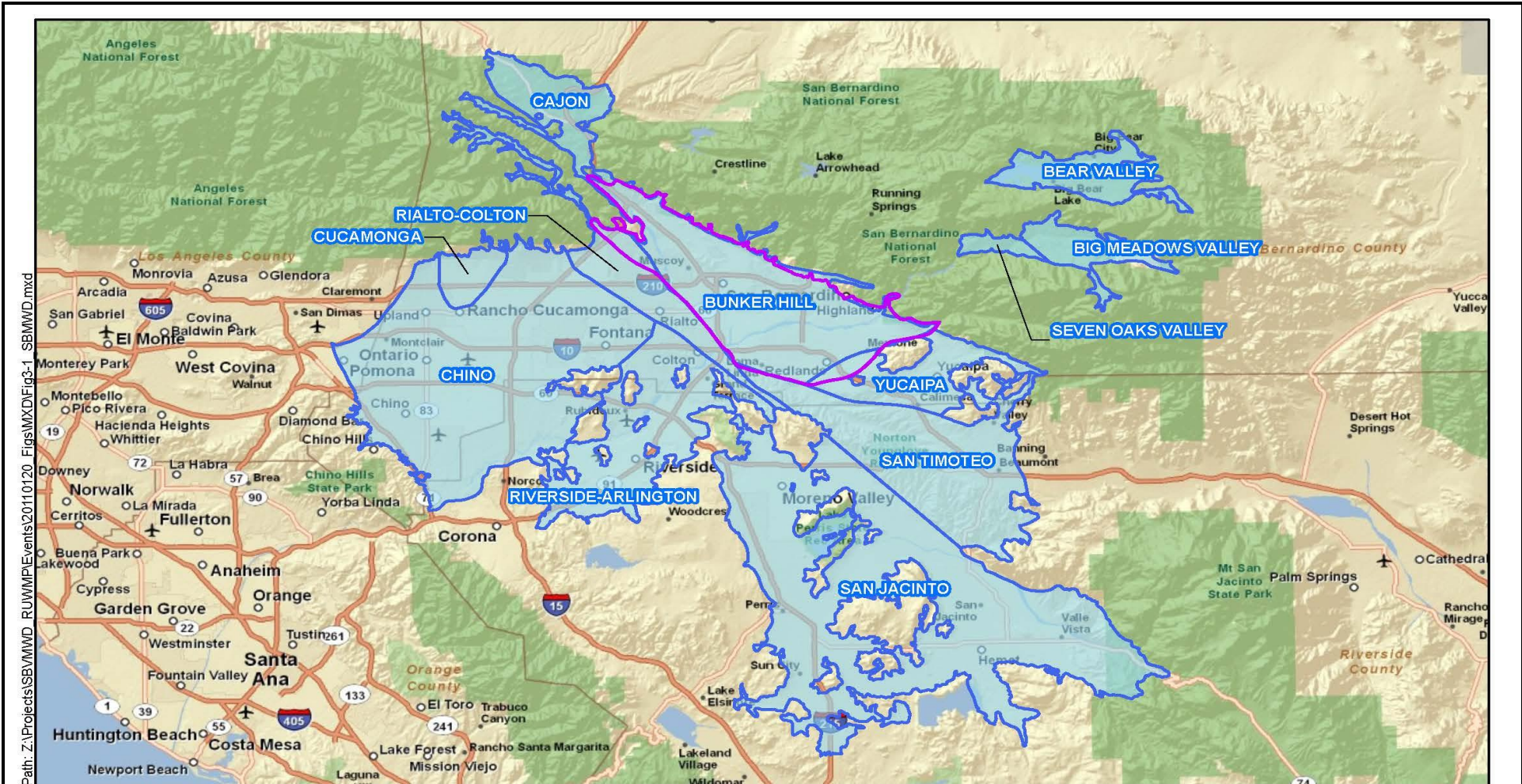
Source: Federal Emergency Management Agency
Flood Insurance Rate Maps. Date: 1990

- 100-Year Flood Zone
- 500-Year Flood Zone
- City Boundary
- Sphere of Influence Boundary



SOURCE: City of San Bernardino General Plan, November 2005 (Figure S-1)

FIGURE 4.11-4



Path: Z:\Projects\SBVMWD_RUWMP\Events\20110120_Figs\MXD\Fig3-1_SBMWD.mxd

Source: Basemap Copyright: © 2009 ESRI, AND, TANA, ESRI Japan, UNEP-WCMC.

Legend

- San Bernardino Basin Area
- Groundwater Basin

N

Scale: Miles

Kennedy/Jenks Consultants
Regional Urban Water Management Plan
San Bernardino Valley

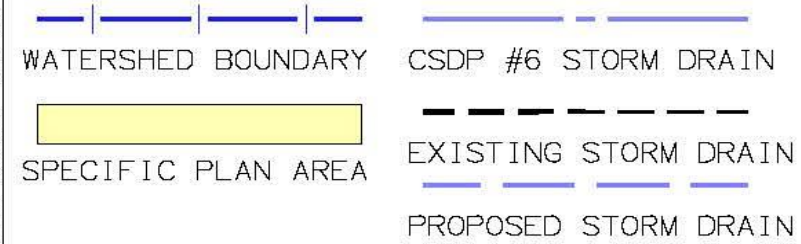
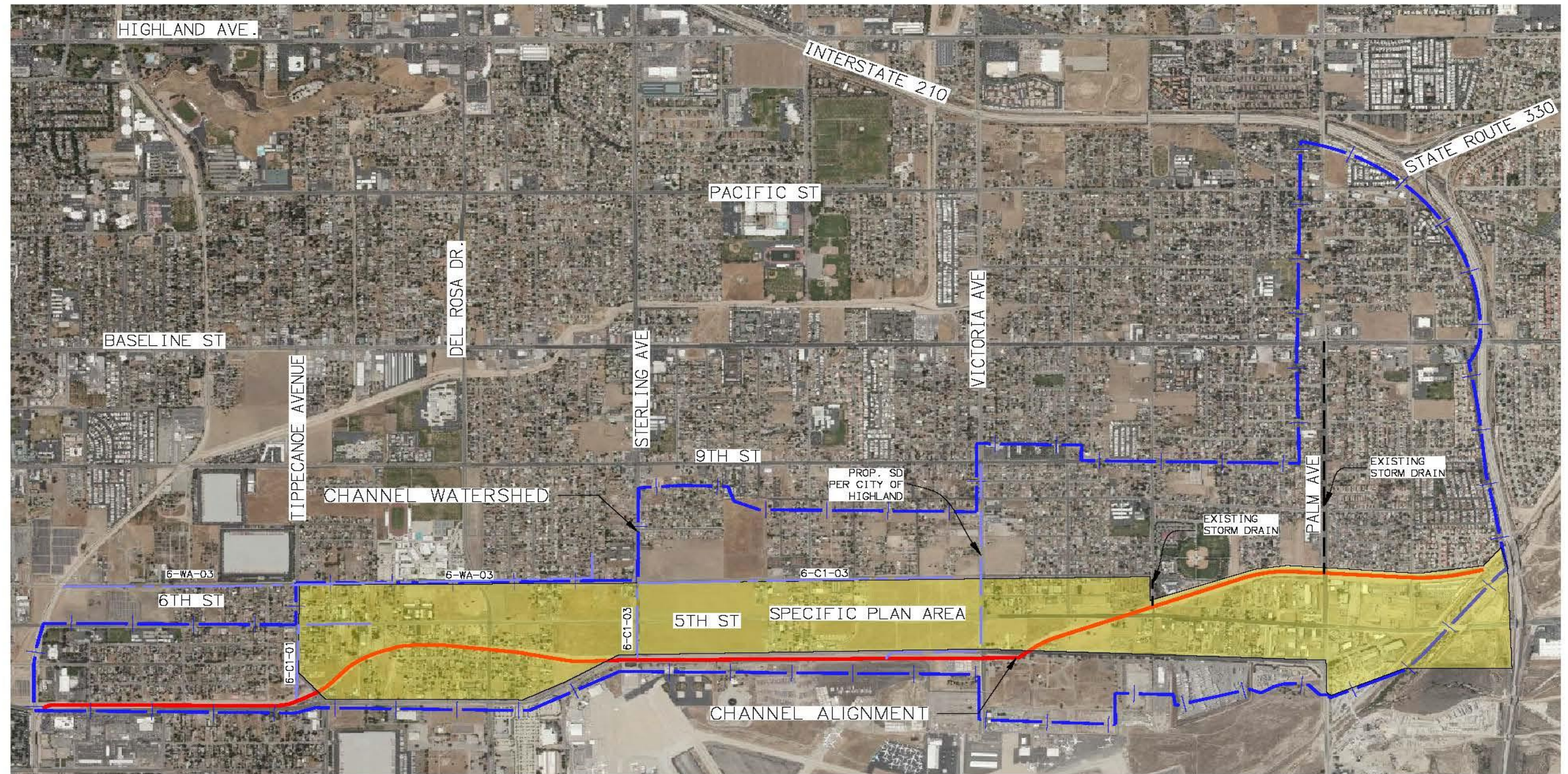
Groundwater Basins of the San Bernardino Area

K/J 1089014*00

SOURCE: 2010 San Bernardino Valley Regional Urban Water Management Plan

FIGURE 4.11-5

Drawing Name: O:\254.01.17\Engineering\Hydrology_Plan\Exhibits\Figures\Figure 2 - Watershed & Channel Alignment.dwg
 Last Opened: Aug 14, 2020 - 9:41am by joe



IVDA 3RD AND 6TH STREET SPECIFIC PLAN CHANNEL ALIGNMENT AND WATERSHED




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FIGURE 2

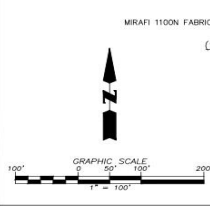
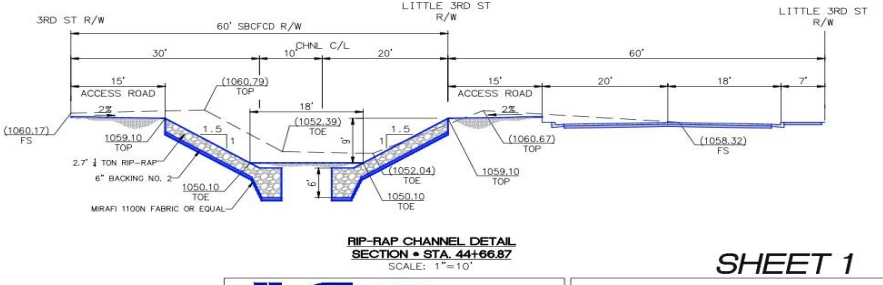
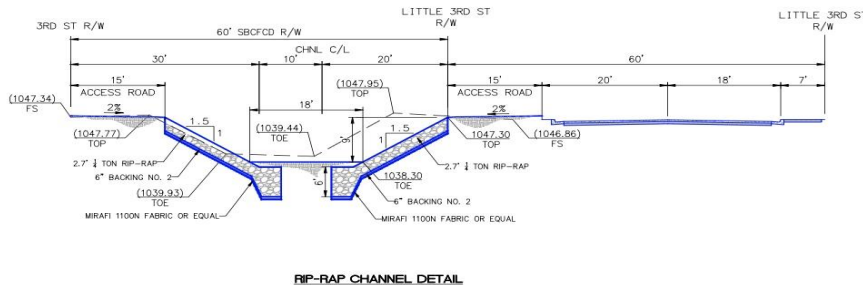
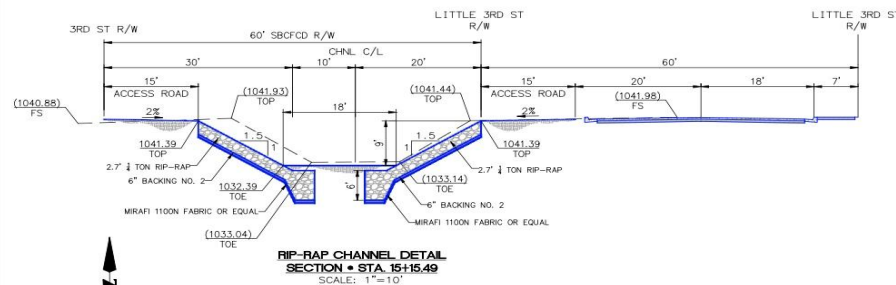
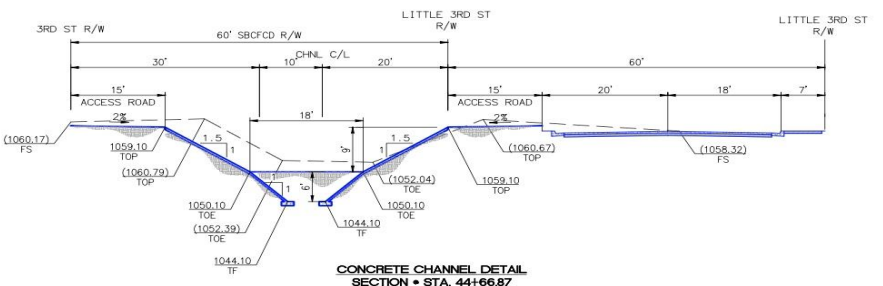
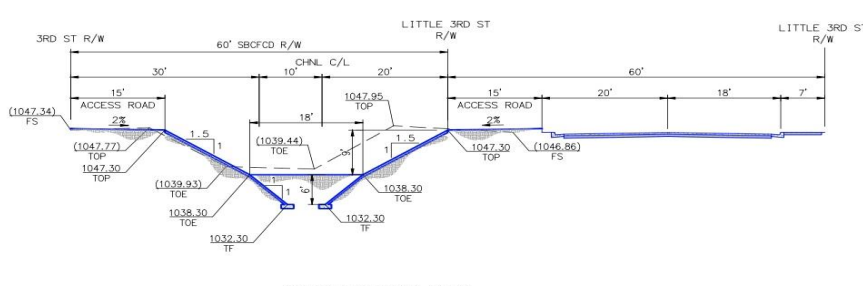
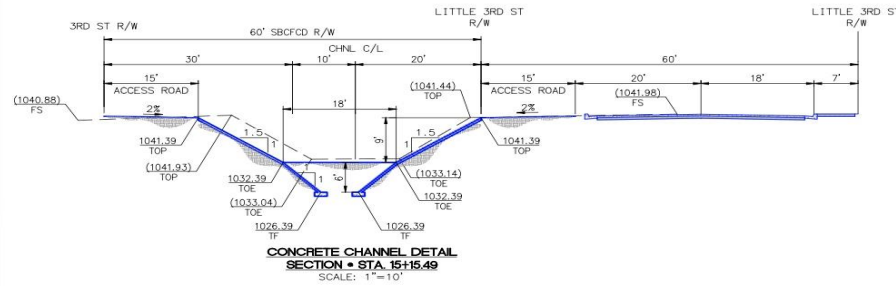
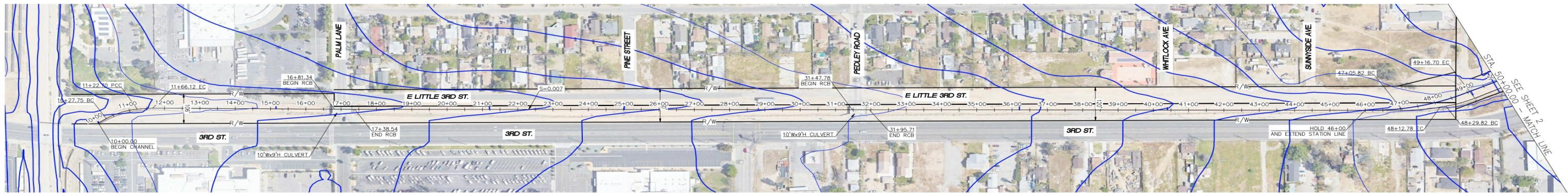
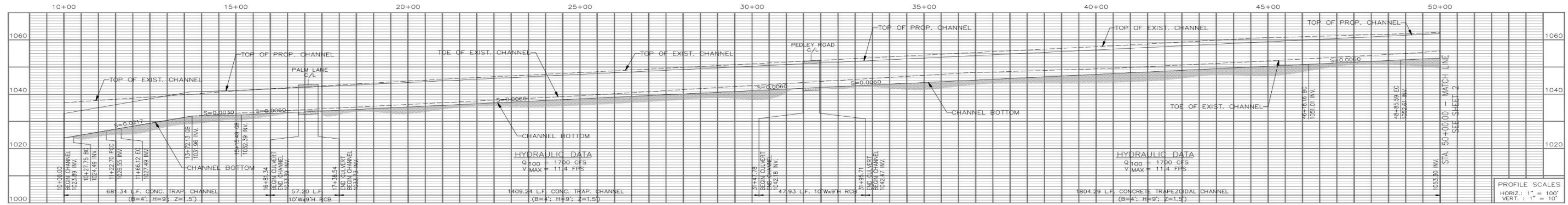
SOURCE: JLC Engineering & Consulting, "Preliminary Hydrology and Channel Design for City Creek By-Pass Channel" dated April 20, 2020

FIGURE 4.11-6

CITY CREEK

IN THE CITY OF SAN BERNARDINO, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA

CHANNEL ALTERNATIVES



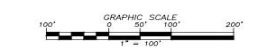
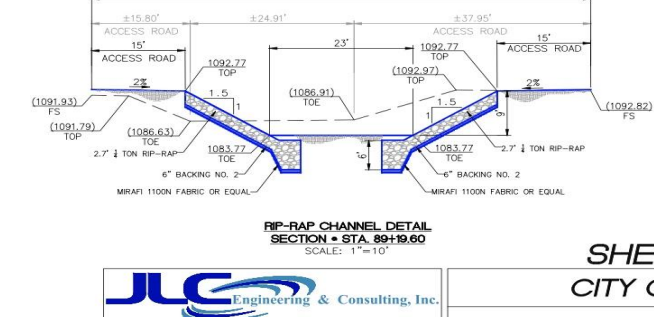
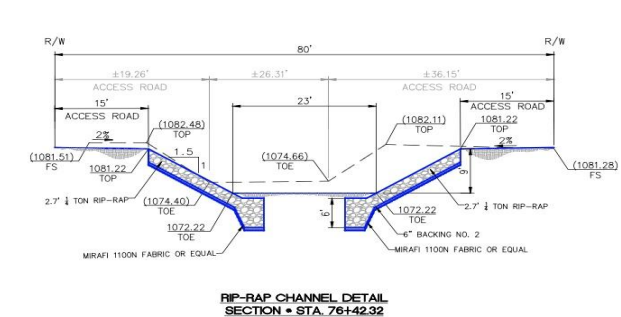
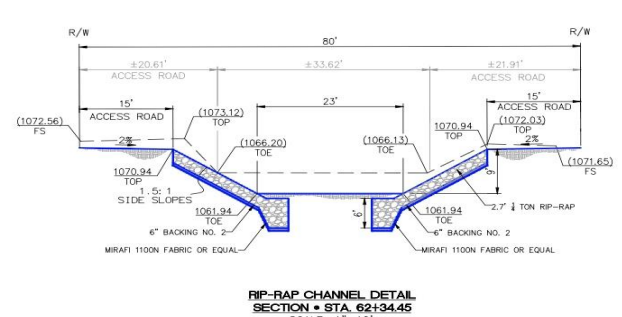
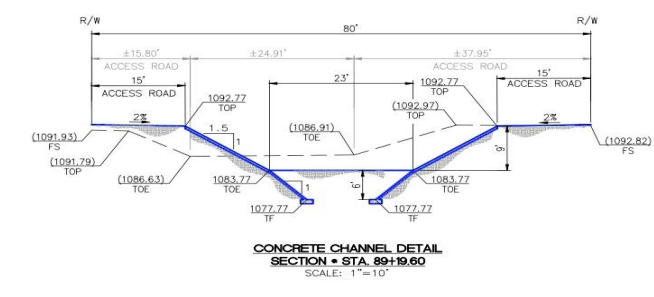
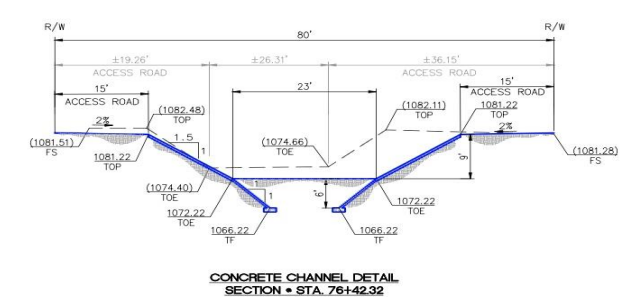
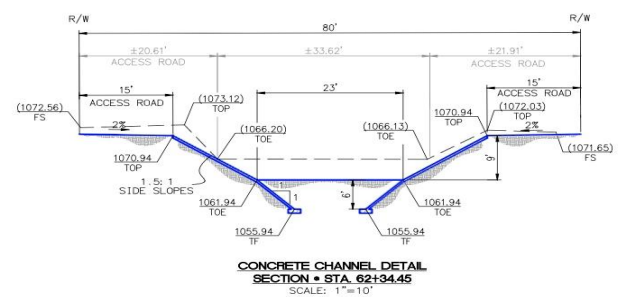
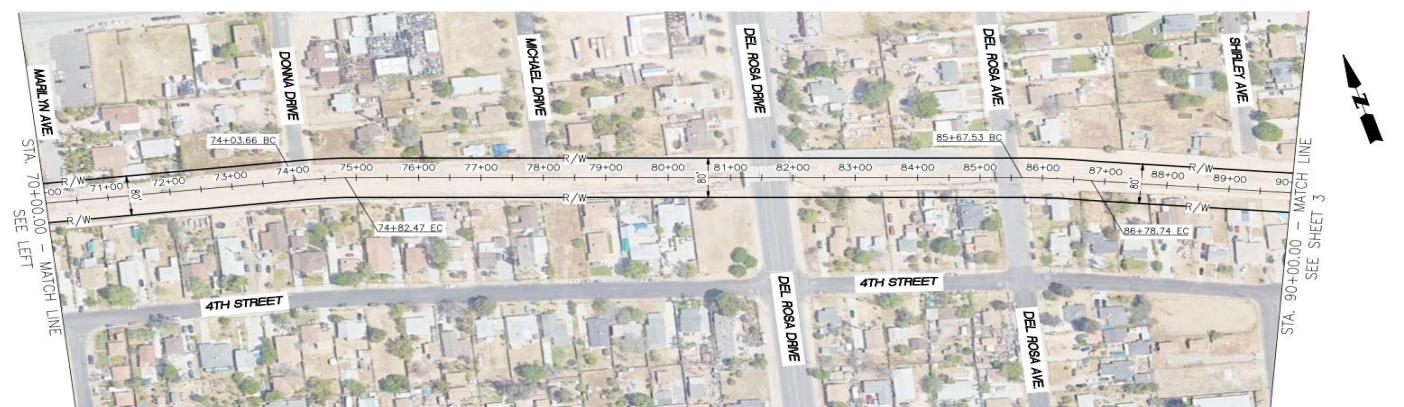
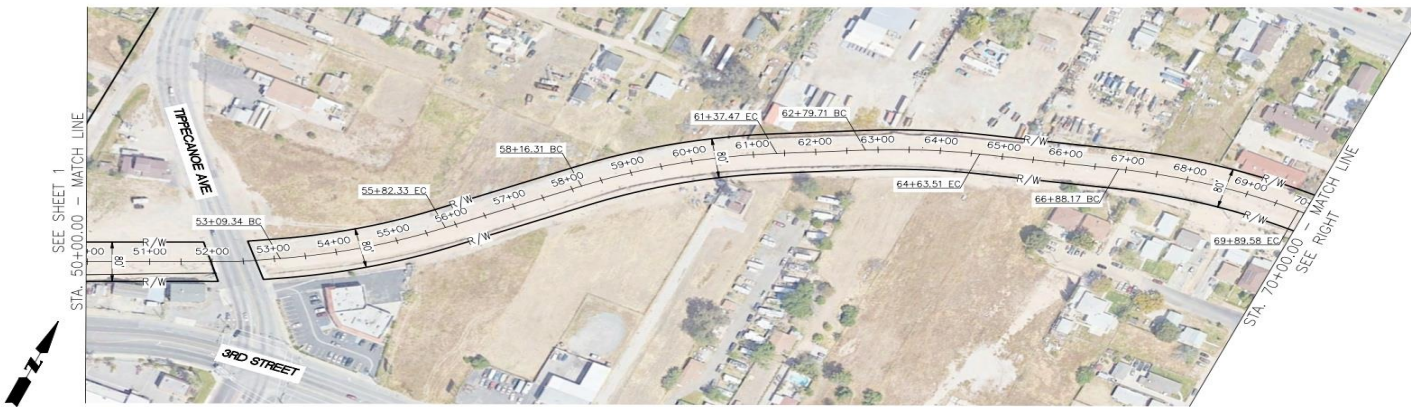
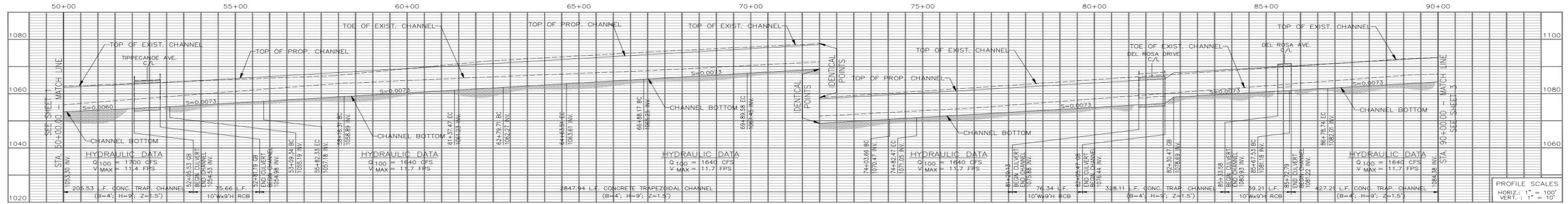
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SHEET 1
CITY CREEK
CHANNEL
ALTERNATIVES

SOURCE: JLC Engineering & Consulting, "Preliminary Hydrology and Channel Design for City Creek By-Pass Channel" dated April 20, 2020

FIGURE 4.11-7

CITY CREEK IN THE CITY OF SAN BERNARDINO, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA CHANNEL ALTERNATIVES



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SHEET 2
CITY CREEK
CHANNEL
ALTERNATIVES

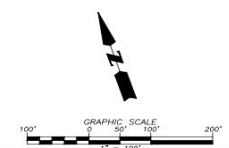
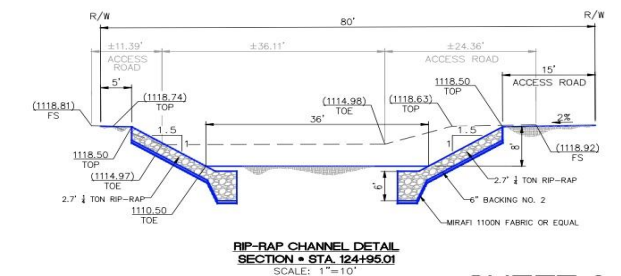
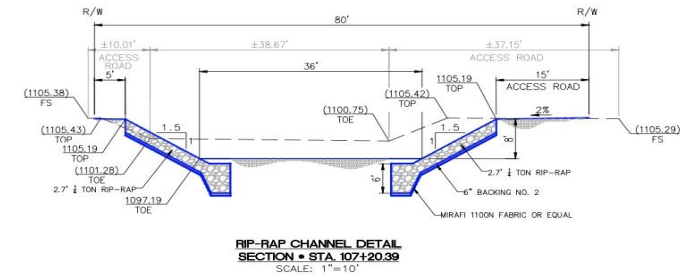
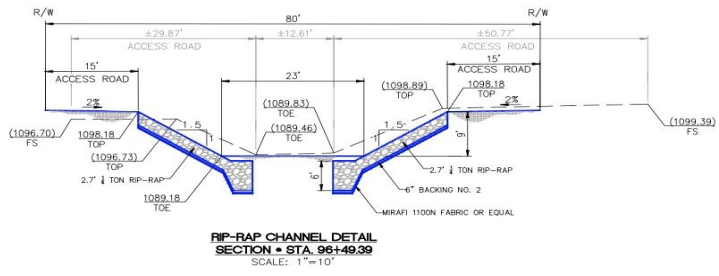
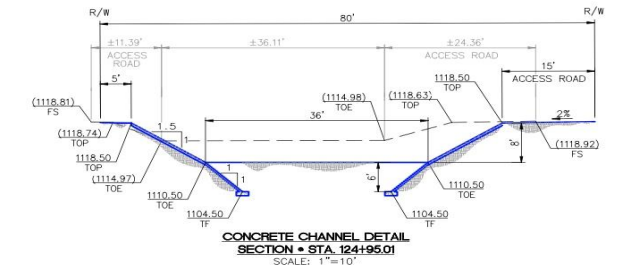
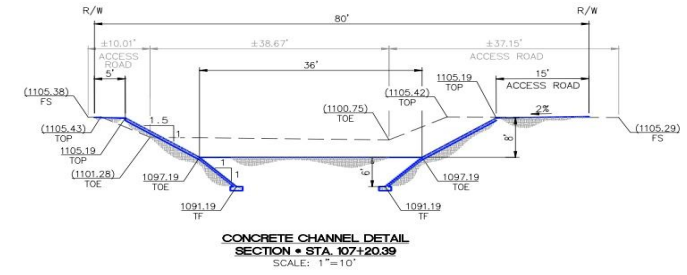
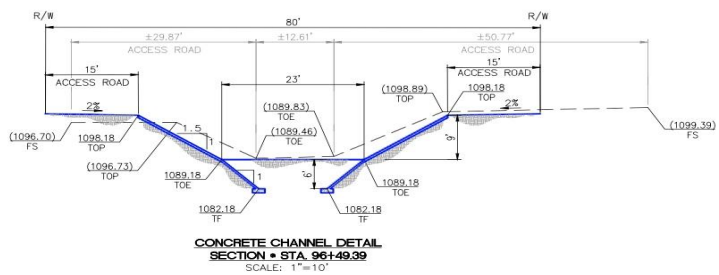
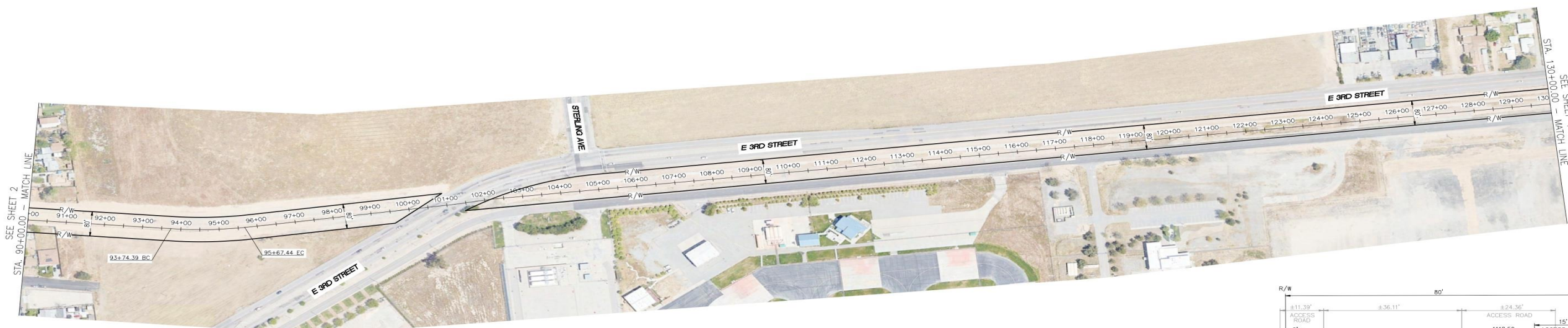
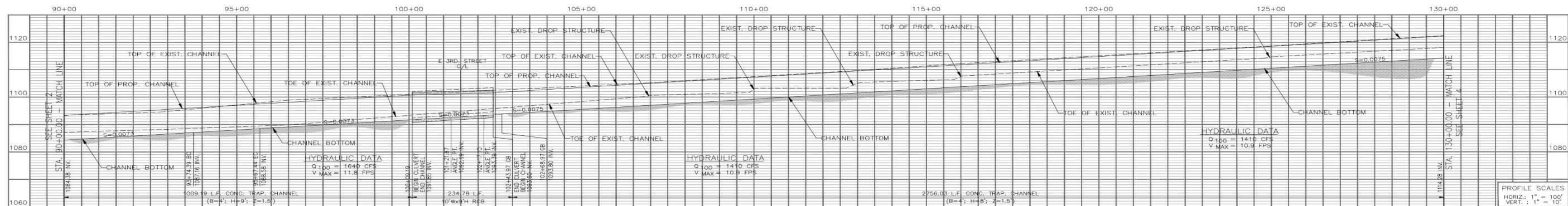
SOURCE: JLC Engineering & Consulting, "Preliminary Hydrology and Channel Design for City Creek By-Pass Channel" dated April 20, 2020

FIGURE 4.11-8

CITY CREEK

IN THE CITY OF SAN BERNARDINO, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA

CHANNEL ALTERNATIVES



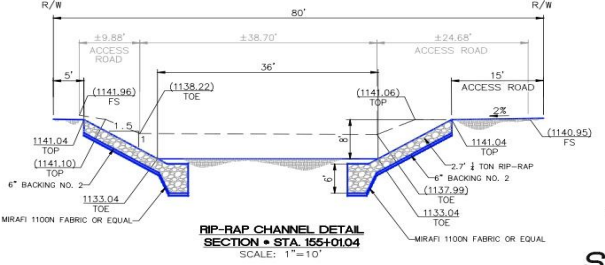
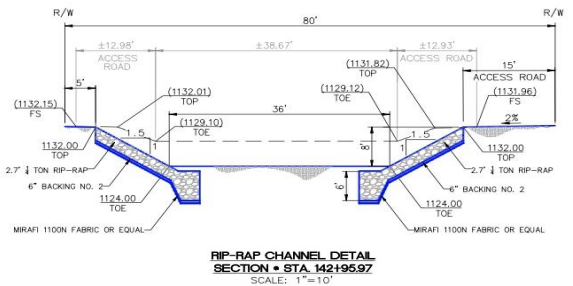
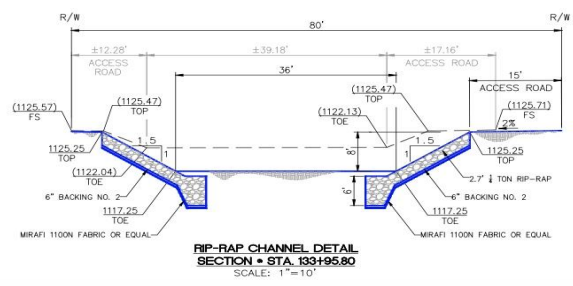
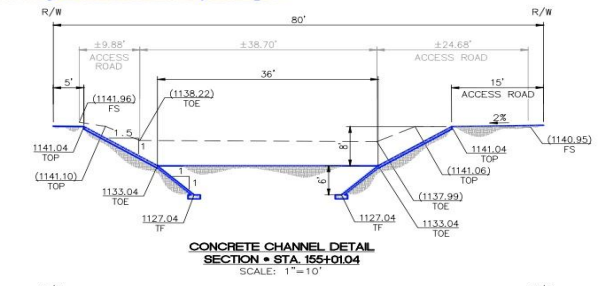
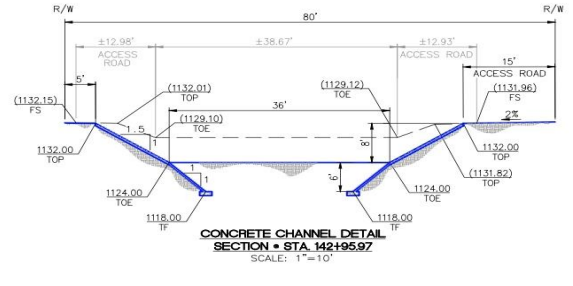
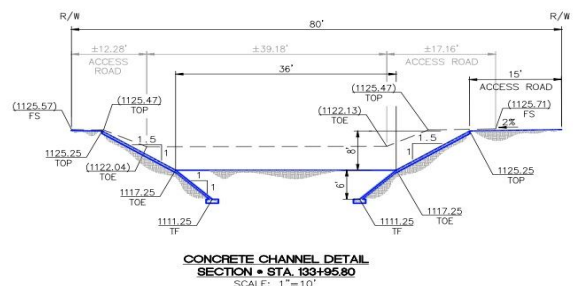
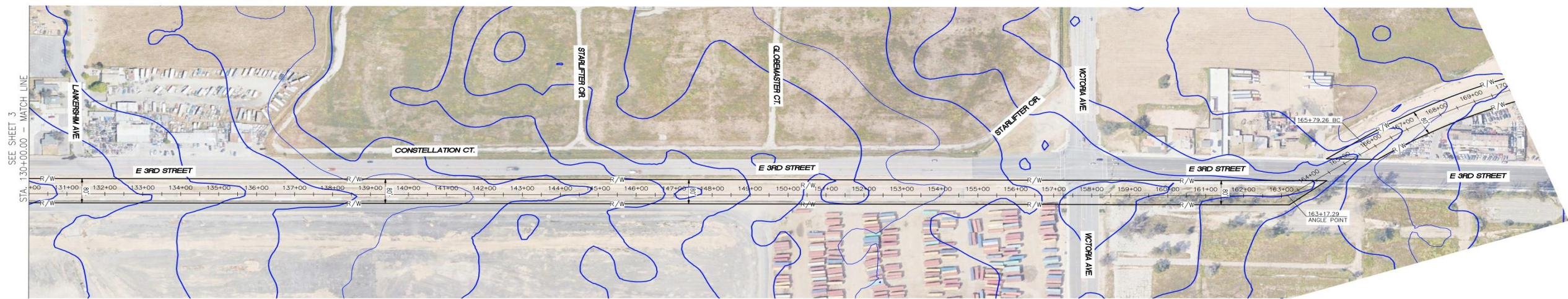
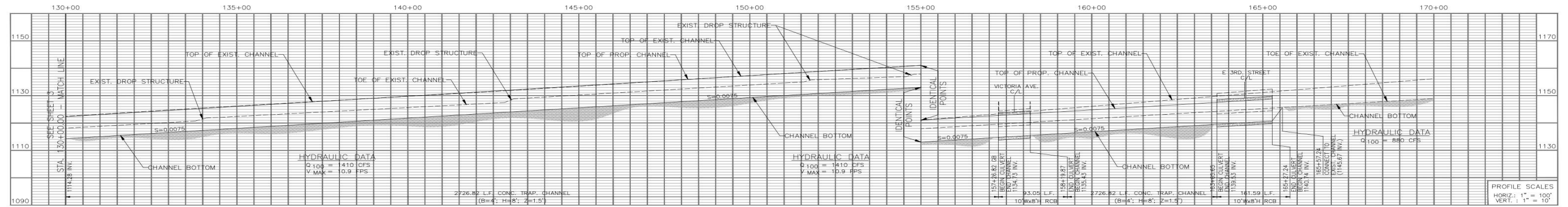
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SHEET 3
CITY CREEK
CHANNEL
ALTERNATIVES

SOURCE: JLC Engineering & Consulting, "Preliminary Hydrology and Channel Design for City Creek By-Pass Channel" dated April 20, 2020

FIGURE 4.11-9

CITY CREEK IN THE CITY OF SAN BERNARDINO, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA CHANNEL ALTERNATIVES

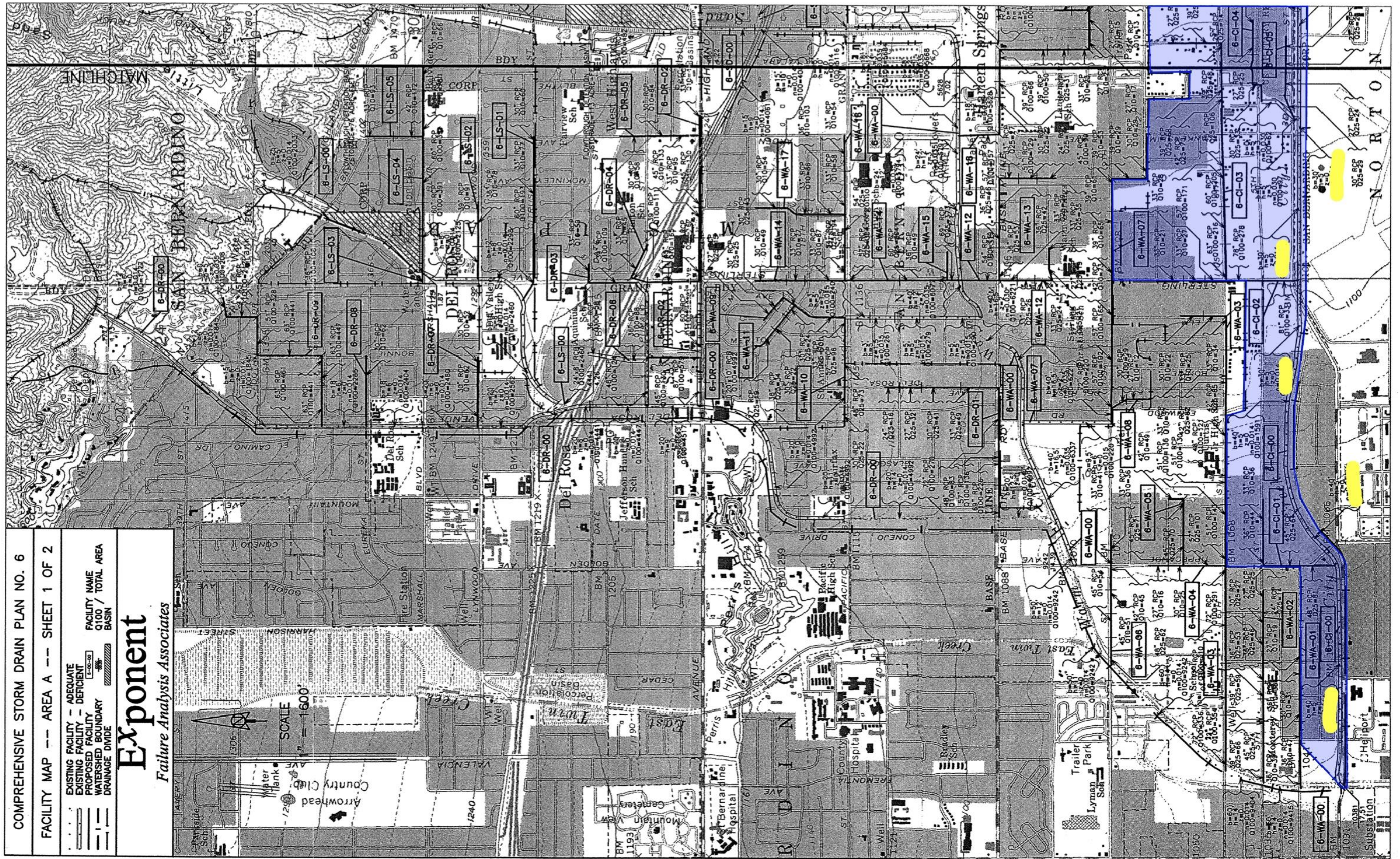


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**SHEET 4
CITY CREEK
CHANNEL
ALTERNATIVES**

SOURCE: JLC Engineering & Consulting, "Preliminary Hydrology and Channel Design for City Creek By-Pass Channel" dated April 20, 2020

FIGURE 4.11-10



COMPREHENSIVE STORM DRAIN PLAN NO. 6

FACILITY MAP -- AREA A -- SHEET 1 OF 2

- EXISTING FACILITY - ADEQUATE
- EXISTING FACILITY - DEFICIENT
- PROPOSED FACILITY
- WATERSHED BOUNDARY
- DRAINAGE DIVIDE

Exponent
Failure Analysis Associates

FACILITY NAME
Q100 / TOTAL AREA
BASIN

SCALE 1" = 1600'

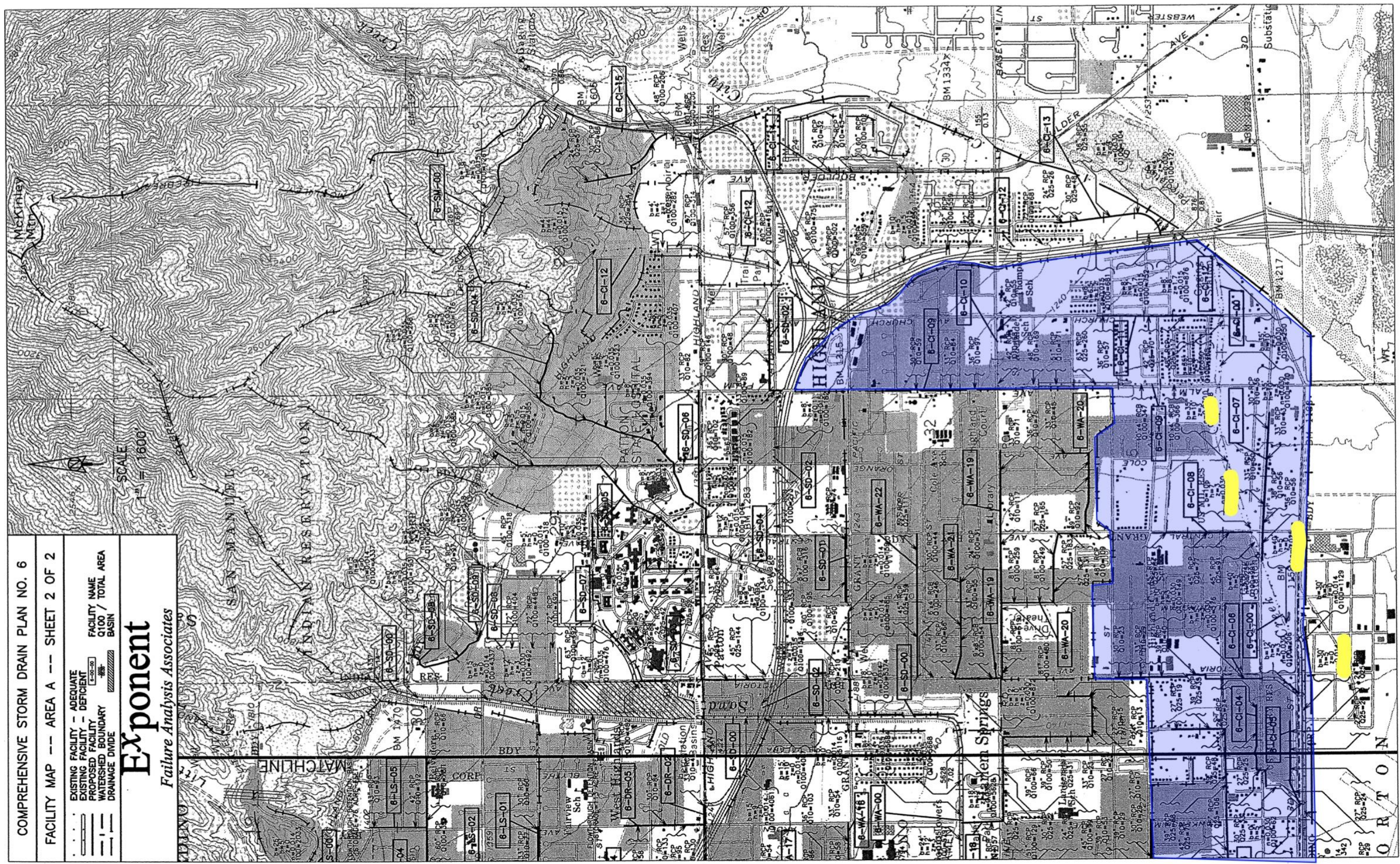
North Arrow

Water Tank

Arrowhead Country Club

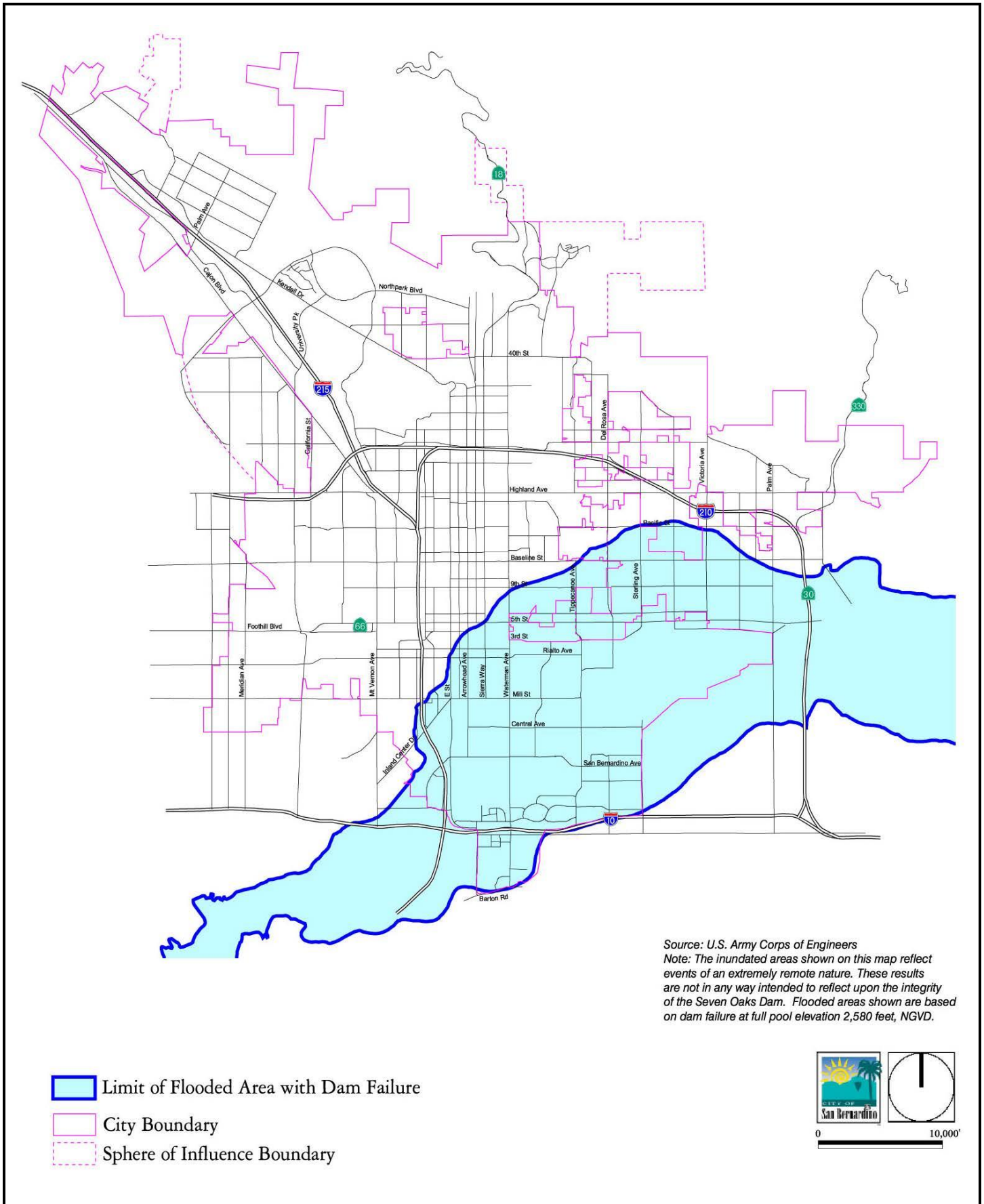
SOURCE: JLC Engineering & Consulting, "Preliminary Hydrology and Channel Design for City Creek By-Pass Channel" dated April 20, 2020

FIGURE 4.11-11



SOURCE: JLC Engineering & Consulting, "Preliminary Hydrology and Channel Design for City Creek By-Pass Channel" dated April 20, 2020

FIGURE 4.11-12



SOURCE: City of San Bernardino General Plan, November 2005 (Figure S-2)

FIGURE 4.11-13

4.12 LAND USE AND PLANNING

4.12.1 Introduction

This subchapter evaluates the environmental impacts relating to land use and planning from implementation of the proposed project. These issues will be discussed below as set in the following framework:

- 4.12.1 Introduction
- 4.12.2 Regulatory Setting
- 4.12.3 Existing Conditions
- 4.12.4 Thresholds of Significance
- 4.12.5 Methodology
- 4.12.6 Environmental Impacts
- 4.12.7 Mitigation Measures
- 4.12.8 Cumulative Impacts
- 4.12.9 Significant and Unavoidable Impacts

The City of Highland General Plan, City of San Bernardino General Plan and Municipal Development Codes of both cities were used in the evaluation presented in this subchapter. When addressing specific topical land use or planning goals or policies (such as biology or cultural resources), information from the pertinent technical studies contained in Volume 2 of this document were used to support land use and planning findings in this section of the Draft EIR.

The following comments were received by the City during the NOP comment period or at the Scoping Meeting held on the proposed project:

NOP Comment Letter #5 PCEJ: The Comment Letter suggests that IVDA and the Cities of Highland and San Bernardino create an oversight committee that can negotiate and implement community benefits agreements with the developers and operators of facilities within the AGSP.

Response: IVDA does not have the land use authority to set up an oversight committee to implement and negotiate community benefit agreements. The Cities of San Bernardino and Highland would need to consider each future development project under the AGSP in addition to the possible community benefit agreements therein as individual development projects are proposed. Given that no specific development projects have been proposed under the AGSP at this time, a community benefit agreement between the developers and the community is not possible at this time.

NOP Comment Letter #5 PCEJ: The Comment Letter suggests that IVDA must do a full environmental impact report with appendices that examine the environmental justice impacts, public health impacts and economic impacts.

*Response: The full-scale environmental impact prepared for the AGSP, herein, examines environmental justice impacts, public health impacts and economic impacts. Public health impacts are specifically found under the Air Quality Subchapter (4.4); IVDA directs the reader to the responses to comments found under the **Air Quality** header. Environmental Justice is typically discussed under Land Use and Planning because each City who has adopted a new General Plan is required to provide a chapter specific to this issue. Furthermore, the Southern California Association of Governments (SCAG) Connect SoCal Report, a regional planning document, also addresses this issue. The analysis of public health and environmental justice can be found under*

the analysis provided under LU-2 under Subsection 4.12.6 in Subchapter 4.12, Land Use and Planning.

NOP Comment Letter #7 Teamsters: The Comment Letter expresses that the planning process for the SBIA should treat the airport as a scarce resource, setting high standards for jobs, infrastructure, pollution mitigation, and quality of life for the surrounding areas. The Comment Letter recommends that the DEIR contain the following: Creation of an oversight committee that can negotiate and implement community benefits agreements with the developers and operators of facilities on the site. The Comment Letter explains how community benefit agreements could be used as a tool under future AGSP development. The community benefit agreement process is outlined in the Comment Letter. The Comment Letter recommends that the DEIR contain the following: Mitigation such as, a study of specific impacts of different types of warehouse and logistical uses, and in particular the different types of vehicles (freight, trucks, commercial vans, passenger vehicles) to be used, and their impact on public safety.

Response: Please refer to the response under NOP Comment Letter #5 PCEJ, above, as this comment addresses community oversight.

Please refer to the responses under Scoping Meeting Speaker #7 Yassi and Scoping Meeting Speaker #8 Sheena, below under Transportation, which address public safety as a result of truck traffic.

Scoping Meeting Speaker #1 Andrea: The speaker believes that there should be objectives about community safety, guaranteeing economic opportunities to the residents who live in the Planning Area.

Response: Community safety objectives can be found throughout the Specific Plan itself, and additionally, future development under the AGSP must conform to the Safety Element guidelines devised under each City's General Plan. Here are just a few of the discussions regarding safety in the Specific Plan itself:

- *Pg 24, Vision: Well designed, built, and maintained roadways maximize safety and connectivity and minimize conflict so that buses, bicycles, automobiles, and pedestrians safely share the roadways.*
- *Pg 91, Lighting: Lighting shall be designed to enhance safety and security.*
- *Pg 100, AGSP Circulation System: To implement the Specific Plan's vision and objectives, as well as the aforementioned state laws, the mobility plan seeks to increase pedestrian and bicycle facilities and safety throughout the Plan Area while also integrating motor vehicles and public transit to create complete streets.*
- *Pg 101, Complete Streets: Complete Streets include components such as fully constructed sidewalks and crosswalks, and bicycle lanes. Not only do Complete Streets help promote efficient travel, safety, and healthy lifestyles, they are also a requirement of State law.*
- *Pg 114, Pedestrian connections within parking areas should include landscaping elements to provide visual interest and relief and to provide safety and security for pedestrians.*
- *Pg 114, Parkway-separated sidewalks with landscaping and shade trees should be provided where possible to provide a buffer from the street, increased safety and convenience for pedestrians, and add color and visual interest to the public realm.*
- *Pg 150, Design Review: new development does not have an adverse aesthetic, health, safety or architecturally related impact upon existing development and adjoining properties within the Plan Area and for each participating agency. A review committee for each Responsible Jurisdiction shall have the authority to development and related site plans,*

review proposed projects for compliance with the development standards and design guidelines of this Specific Plan.

- *Pg 151, Findings Related to Design Review: That the proposed project, together with any applicable conditions, will not be detrimental to the public health, safety, or welfare or will not be materially injurious to properties or improvements in the vicinity of the site.*
- *Pg 185: Relocating the bikeway will ensure the safety of cyclists, ensure that truck traffic along 5th Street is uninterrupted, and help improve the way people get to and around the Plan Area.*

*The analysis of safety in regards to each City's General Plans can be found under LU-2 under Subsection 4.12.6 in Subchapter 4.12, Land Use and Planning. The request for guaranteeing economic opportunities to the residents who live in the Planning Area is an interesting one. In order for a program like this to work, the developers need to be able to draw workers from the planning area that meet their criteria for the specific job at hand, and the residents need to buy into desiring to work for such developers. Without any specific development proposals under the AGSP at this time, it would be speculative to presume that residents, specifically the approximately 2,471 persons that live in the AGSP Planning Area, would either be qualified for or interested in the specific job opportunities that will be presented under future AGSP development. Job guarantee is not a CEQA issue. It is something that could be negotiated with future developers. The Lead Agency cannot impose from where a future specific project development obtains future employees. IVDA, and the Cities of Highland and San Bernardino can recommend to developers that they initially reach out to the community for employment at future facilities. This would be encouraged through MM **TRAN-8** which addresses Vehicle Miles Traveled (VMT) reduction measures, including prioritizing hiring local workers to reduce employee generated VMT. The IVDA, City of Highland, and City of San Bernardino, as stated above, cannot require a building operator or developer to hire local employees, but as part of the entitlement process, this practice can be encouraged.*

Scoping Meeting Speaker #2 Stephen: The speaker asks: If this was Palm Springs, would we be asking area to be rezoned? Is this being development type considered because this is an impoverished community? Can developers use eminent domain? Can the Developer threaten the residents to make them leave? If the purpose of IVDA is to revitalize the community, is the proposed use (Light industrial and commercial), minimum wage jobs meeting this goal? The speaker doesn't believe that the development supported by IVDA has revitalized the community at all.

Response: Unlike the Palm Springs International Airport, much of the area surrounding the SBIA is vacant (290.21 acres of the approximately 515.36 developable acres within the AGSP, refer to Table 3-1). Furthermore, in addition to the vacant acreage, approximately 75.75-acres of the AGSP land area is currently developed with Industrial uses, and 19.87 acres are developed with Commercial uses. These uses would remain consistent with the proposed Specific Plan designation of "Mixed Use Business Park." This development proposed to be allowed under the AGSP, the Cities and IVDA believe, would provide a setting under which the vacant land area that has remained vacant in the years since the Leland Norton Airforce Base has transitioned into the SBIA would have the best opportunity to be developed. Furthermore, as with the other transition areas around the SBIA to the south and west, the project that has been proposed would provide a transition between the airport, airport-serving, and logistics/industrial/commercial uses.

As stated in the Scoping Meeting, developers cannot use eminent domain. Eminent domain is the prerogative of a government or its agent to acquire private property for public use, with payment of appropriate compensation. Developers cannot threaten residents to make them leave, as this

would not be legal. Ultimately, in order for a developer to wish to buy property from the residents within the AGSP, the residents would need to agree to sell their property. Additionally, in a situation where a future development would displace residents, the developer would be required to adhere to MM **PH-1**, which would ensure that residents would receive adequate relocation assistance.

Norton Air Force Base was announced for closure in 1988 under the Base Realignment and Closure Act (BRAC-1) and was officially closed on March 31, 1994. At the time of closure, over 10,000 direct jobs were lost, which were comprised of approximately 8,000 military and 2,000 civilian employees. A 2009 California State University San Bernardino Economic Impact Analysis concluded that the 10,000 direct jobs lost due to the Norton Air Force Base closure equated to a total job loss of over 15,458 total jobs, representing a \$1.5 B loss in Annual payroll and a \$1.9 B loss of Economic Output.

Since its formation as a special military base reuse joint powers authority in 1990, the Inland Valley Development Agency (IVDA) has actively engaged and deployed numerous economic development, environmental remediation, workforce development, airport, and public infrastructure programs and projects to help bring and retain new jobs and investment into its base reuse project area. These include a number of inter-governmental, tribal, and public-private partnerships. As of 2021, the IVDA had helped to return over 17,126 jobs to the region and over 15 million square feet of new development.

Scoping Meeting Speaker #5 Henry Salazar: The speaker mentions job guarantee as a desire.

Please refer to the response under Scoping Meeting Speaker #1 Andrea, above, which provides a response to the concerns raised in this comment.

Scoping Meeting Speaker #7 Yassi: The speaker is concerned about possible jobs and livelihood offered to the community? The speaker asks why are more minimum wage jobs with companies that are multi-national corporations that don't care about the community being invited to this area? The speaker states that there is not a fresh food grocery store nearby. The speaker asks how would the AGSP facilitate this? The speaker suggests community-based mitigation to increase livelihoods in this area. The speaker states that there are retrofit jobs that provide a livable wage. The speaker suggests that the document/Project Team should spell out the requirements regarding wages by the state in the document. The speaker believes that there should be a Community oversight structure housed within the Community herein to oversee the implementation of future projects under the AGSP.

Please refer to the response under Scoping Meeting Speaker #1 Andrea, above, which provides a response to some of the concerns raised in this comment. As stated under the response to Scoping Meeting Speaker #1 Andrea, above, there are no specific development proposals under the AGSP at this time. Job opportunities are something that could be negotiated with future developers. The Lead Agency cannot impose from where a future specific project development obtains future employees. IVDA, and the Cities of Highland and San Bernardino can recommend to developers that they initially reach out to the community for employment at future facilities. The response under Scoping Meeting Speaker #1 Andrea, above, addresses the issue of drawing employees from the community. The community will have an opportunity to provide input on future projects proposed under the AGSP through the follow-on entitlement process that would be required for future development, i.e., through City Planning Commissions and City Councils. At this stage, where future site-specific development is proposed, the community can provide input to the Cities on the environmental analyses and scope of future development.

Please refer to the response under NOP Comment Letter #5 PCEJ, above, as this comment addresses community oversight.

The proposed project would include the installation of infrastructure throughout the AGSP planning horizon. The installation of such infrastructure would generate new “retrofit” job opportunities. The IVDA cannot impose a specific requirements regarding wages for future operations proposed under the AGSP. State and local wage requirements must be adhered to, but as IVDA does not have land use and entitlement authority, it cannot impose a specific wage requirement on future development under the AGSP beyond those that have already been established. Furthermore, prevailing wages and compliance with the Federal and California State Law regarding wages is not a CEQA issue and therefore will not be addressed further in this DEIR.

Scoping Meeting Speaker #9 Sean Martinez: The speaker believes there is a high level of interest in economic development in the community. The speaker believes there is an opportunity to negotiate and implement Community Benefit Agreements for each of the developments that would occur under the AGSP. The speaker communicates that there is a lack of trust between the community and institutions. They believe this project would provide an opportunity to create good will in the community, which will be needed to revitalize this area. They believe that the last 30 years have been a failure to the community as a result of high injury rate jobs and high turn-over jobs, which have not benefitted the community. Working with the community to receive their feedback and implement Community Benefit Agreements would present an opportunity to restore trust. The speaker offers to help IVDA and the Cities to implement the community benefit agreements, etc.

Please refer to the response under Scoping Meeting Speaker #2 Stephen, above, which provides a response to the concerns raised in this comment.

Please refer to the response under NOP Comment Letter #5 PCEJ, above, as this comment addresses community oversight.

Scoping Meeting Speaker #10 Jo: The speaker is looking for community involvement, good jobs, and protection of the surrounding houses. The speaker believes that San Bernardino has been on a course of tragedy with non-union jobs, poor training.

Please refer to the response under NOP Comment Letter #5 PCEJ, above, as this comment addresses community oversight.

The following reference documents were used in preparing this section of the DEIR.

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- Municipal Development Codes for both cities

4.12.2 Regulatory Setting

State and local laws, regulations, plans, or guidelines that are applicable to the proposed project are summarized below.

4.12.2.1 State

California Planning and Zoning Law

The framework within which California cities and counties manage land use and planning oversight is set forth in State Planning and Zoning Law. Under State planning and zoning law, each city and County must adopt a comprehensive, long-term general plan. State law gives cities and counties wide latitude in how a jurisdiction may create a general plan, but there are fundamental requirements that must be met. This requirement extends to the inclusion of seven mandatory elements described in the Government Code, including a land use element. Each of the elements must contain text and descriptions setting forth objectives, principles, standards, policies and goals; and diagrams and maps that incorporate data and analysis for the affected jurisdiction.

Office of Planning and Research General Plan Guidelines

To guide local jurisdictions in preparing their general plan, The Governor's Office of Planning and Research (OPR) is required to adopt and periodically revise guidelines for the preparation and content of local general plans pursuant to Government Code para/ 65040.2. The General Plan Guidelines are advisory, not mandatory. Regardless, the Guidelines are the State's only official document explaining California's legal requirements for general plans. Local jurisdictions and the public depend upon the Guidelines for support when preparing local general plans. The courts have periodically referred to the General Plan Guidelines in determining compliance with State planning law. For this reason, the Guidelines closely adhere to statutes and case law.

4.12.2.2 Regional

Southern California Association of Governments

Southern California Association of Governments ("SCAG") is a regional council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties, which encompass over 38,000 square miles. SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Agency (MPO). As a result, SCAG is the federally recognized MPO for this region 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 southern California region's metropolitan planning organization, SCAG cooperates with the South Coast Air Quality Management District, the California Department of Transportation, and other agencies in preparing regional planning documents. SCAG has developed long range regional transportation plans, including sustainable communities strategies (SCS) and regional housing needs allocation (RHNA) and other plans for the region to achieve specific regional objectives, as discussed below.

On April 7, 2016, SCAG adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016–2040 RTP/SCS), a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The 2016 RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with Senate Bill 375, improve public health, and meet the National Ambient Air Quality Standards. This long-range plan, required by the state of California and the federal government, is updated by SCAG every four years as demographic, economic, and policy circumstances

change. The 2016 RTP/SCS is a living, evolving blueprint for the region's future (SCAG 2016). The project area is also located within the San Bernardino County Transportation Authority (SBCTA) and the San Bernardino Council of Governments (SBCOG) jurisdiction, a sub-region of SCAG.

The proposed project meets the CEQA definition of having statewide, regional, or area-wide significance. Thus, the proposed project is subject to an individual consistency evaluation with regional plans, such as those published by SCAG. SCAG's 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), now identified as *Connect SoCal*. This document was adopted by SCAG in September 2020.

4.12.2.3 Local

The two city General Plans define the various goals and policies that guide land use development within the Airport Gateway Specific Plan (AGSP) area. The unusual jurisdictional boundaries in the AGSP area reflect a complex history of development and expansion of city jurisdictions in the project area. The City of San Bernardino was incorporated in the 1880s and the City of Highland incorporated about 100 years later, in 1987. In most instances the complex boundary between the two cities reflects the land within the AGSP project area that had not been incorporated into the City of San Bernardino when the City of Highland was formed. The actual boundary between the two cities is shown on Figure 3.4 in Chapter 3 of this Draft EIR.

Both City General Plans were adopted approximately 15 years ago, the City of San Bernardino in 2005 and the City of Highland in 2006. The detailed goals and policies that apply to the AGSP project area are discussed below under the issue of potential conflicts. Presented in this section are portions of the General Plans that reference the future land use expectations for the AGSP project area.

Highland General Plan

The City of Highland General Plan Land Use map is provided as Figure 4.12-1 of this document. With the exception of land north of 5th Street between Victoria and Central, the existing land use designations for the project area consist of Industrial, Business Park and Commercial. In the exception area mentioned above the land use designations consist of Low Density Residential and Planned Development (a multi-family residential designation). The existing land use aerial photo in Figure 4.12-2 clearly shows the existing land uses in the City of Highland which are quantified in Table 3-1 of this Draft EIR. From the City of Highland's General Plan, the following segments of text have been selected to characterize the City's general development concept for the AGSP project area. Detailed evaluation of goals and policies is provided in the Environmental Impact section of this Subchapter.

The first mention of the AGSP project area in the Highland General Plan (GP) occurs on Page 1-2 under the heading "Invigorating Key Activity Centers." The 5th Street Corridor "paralleling the San Bernardino International Airport is one of the locations in Highland that have been "biding their time," in other words apparently ready for development under the Industrial (I) and Business Park (BP) land use designation assigned in 2006. However, development has not progressed as anticipated primarily due to lack of funding for supporting infrastructure. One purpose of the AGSP is to "jump start" the development of the Corridor (further discussed below) by focusing on identifying the underlying infrastructure required to support the Specific Plan's proposed Mixed-Use Business Park designation, which includes Business Park (BP) uses and a commitment by

the cities to support assemblage of small parcels to provide parcels large enough for development under the Mixed-Use Business Park designation.

The City of Highland BP designation includes the following language (P. 2-15, Highland GP): *“The Business Park designation allows for a variety of light industrial, research and development, and office uses that provide pleasant and attractive working environments. The designation also allows business support services, anchor retail developments, and individual commercial uses that support the employees and clientele of the area....appropriate uses include light manufacturing, wholesaling and warehousing conducted within an enclosed building; administrative and professional uses; business support uses; eating and drinking establishments; personal services; and retail sales of durable goods, along with general retail sales in areas designated to be retail anchors of a larger Business Park designated area.”*

The City of Highland Industrial (I) designation includes the following language (P. 2-16, Highland GP): *The primary purpose of areas designated Industrial is to provide for light industrial, research and development, and office uses for firms seeking an attractive and pleasant working environment and an advantageous location with proximity to the San Bernardino International Airport and freeway access.... Typical uses include light manufacturing and assembly, small scale warehousing and distribution, and research and development. In addition, administrative offices supporting the primary industrial use of the property may be permitted.*

To ensure land use compatibility (P. 2-28 Highland GP), the City has identified the following objective: *Site planning, orientation of uses on site and buffering between adjacent properties will all be necessary to maintain land use compatibility in Highland.* The Highland GP also identifies Community Policy Areas. The City has also identified individual areas of the City where specific goals and policies will be focused. One of these Community Policy Areas is the “5th Street Corridor.” Refer to the map in Figure 4.12-3 of the 5th Street Corridor. (P. 2-38 Highland GP) A second Community Policy area is the Victoria Avenue Corridor. As shown on Figure 4.12-4, the southern end of this Corridor extends into the 5th Street Corridor (the AGSP project area) and the AGSP will be evaluated in the Environmental Impact section for consistency with the Victoria Avenue Corridor.

San Bernardino General Plan

In contrast to the City of Highland, the City of San Bernardino is a larger community with more varied land uses due to length of historic development. Whereas, the AGSP project area comprises a substantial portion of Highland’s light industrial development area, this area functions as a small percentage of the City of San Bernardino’s overall designated industrial land use. San Bernardino’s General Plan contains two maps that illustrate land use, one called the Foundation Component Plan presents a “high level” view of land uses (see Figure 4.12-5) and a second map presents the detailed land uses authorized throughout the City (see Figure 4.12-6). The land use designations within the San Bernardino AGSP project area consist of Commercial General, Industrial Light, and Residential Multi-Family. Commercial designation on the west transitions to light industrial and finally to Multi-Family on the east.

The existing land use aerial photo in Figure 4.12-2 clearly shows the existing land uses in the City of San Bernardino which are quantified on Table 3-1 of this Draft EIR. From the City of San Bernardino’s General Plan, the following segments of text have been selected to characterize its general development concept for the AGSP project area. Detailed evaluation of goals and policies is provided in the Environmental Impact section of this Subchapter.

The first mention of the historic development pattern in San Bernardino AGSP project area in the San Bernardino General Plan (GP) occurs on Page 2-1 under the heading "Introduction." *"The way in which our land is used provides the most vivid impression of San Bernardino. Our pattern of land uses transitions from predominantly industrial near the Santa Ana River and the San Bernardino International Airport and Trade Center to predominantly residential toward the mountains, with a substantial commercial and industrial core at the center."* The purpose of the AGSP is to "jump start" the development of the Corridor (further discussed below) by focusing on identifying the underlying infrastructure required to support the proposed Mixed-Use Business Park uses throughout the planning area. The AGSP represents a commitment by the cities to support assemblage of small parcels to provide parcels large enough for development under the Mixed-Use Business Park designation.

The City of San Bernardino includes the following language regarding compatibility (P. 2-34, San Bernardino GP) between land uses: *"San Bernardino is a diverse community, which, as it has developed over many years, contains a rich mixture of residential, industrial, entertainment, office, and commercial land uses. A number of uses, including industrial, commercial, and transportation facilities, can have potentially adverse effects upon residential neighborhoods, sensitive habitat areas, medical facilities, and schools. Achieving compatibility between these various uses is a delicate process, especially when these uses are located in close proximity to one another.....The potential impacts of commercial, industrial, and transportation facilities, which are vital to San Bernardino's economy and many of which are not under the City's jurisdiction, must be balanced with the needs of residential neighborhoods. Site planning, orientation of uses on site, buffering between adjacent properties, coordination with outside agencies and jurisdictions, and limitation of noise and emissions, are necessary to achieve compatibility between the range of uses in the City."*

The San Bernardino General Plan assigns a "Strategic Area" designation to the San Bernardino International Airport and Trade Center. Strategic areas are locations where the City anticipates future development to occur and identifies pertinent strategies to guide this development. The following text is abstracted from the General Plan (Pp. 2-64 and 2-65): *"The San Bernardino International Airport and Trade Center (SBIA) Strategic Area is located on the southeastern edge of the City. The Strategic area is bounded on the north by 3rd and 5th Streets, on the south by Mill Street, on the west by Lena Road, and on the east by the Cities of Redlands and Highland.....The SBIA can accommodate large warehousing and manufacturing companies, and more importantly, it serves as a transportation hub, providing access to air transportation and close proximity to major rail lines and roadways....There is an opportunity for the properties surrounding the SBIA to develop with uses that are related to or can benefit from proximity to the airport. For instance, business oriented and general aviation related uses, manufacturing, warehousing, office and travel related business such as hotels, could be attracted by the presence of the Airport."*

Thus, even though the two cities have approached the AGSP project area from different perspectives, both cities envision that the area will be developed with job generating uses consistent with SBIA activities. The next section discusses how this transition is currently evolving without the AGSP.

4.12.3 Existing Conditions: Land Use and Planning

The Airport Gateway Specific Plan project area consists of a narrow band of land mostly north of 3rd Street, extending east-west from Tippecanoe Avenue to the Interstate 210 freeway and north-south from 3rd Street to the center of 6th Street. One parcel of land is located south of 3rd Street at the corner of 3rd and Palm/Alabama Street. The width of this area (north-south) varies from

about 1,200 feet at Sterling Avenue to about 2,400 feet at Tippecanoe Avenue. The AGSP project area encompasses about 678.93 acres, with 484.56 acres in the City of Highland and 194.37 acres in the City of San Bernardino.

As Figure 4.12-2 shows, the western edge of the AGSP project area is almost fully developed with a complex mix of land uses. This mix includes neighborhood commercial uses (primarily at intersections), residential uses (both single- and multi-family), some light industrial uses, and the Sterling Natural Resources Center (a wastewater treatment plant and education center) being developed by East Valley Water District. East of Del Rosa Drive extending to Sterling is a similar mix of uses, plus some open space just west of Sterling. The next segment moving east within the AGSP consists of open space to just west of Lankershim Avenue, with a mix of commercial and light industrial uses just west of Lankershim and another area of undeveloped land just west of Victoria.

Between Victoria Avenue and Central Avenue, the area north of 5th Street is a mix of single- and multi-family residential uses. Between 3rd and 5th in the same area is a complex mix of residential, neighborhood commercial and industrial uses. From Central Avenue east to the freeway, with one exception, the uses are primarily industrial, with a few residences. At Palm Avenue is a small node of commercial uses. Finally, just west of Interstate 210 is the City Creek channel which is bridged at 5th Street. No new development is proposed within City Creek.

Surrounding the project area are the following uses: to the south is the San Bernardino International Airport which extends east-west from Tippecanoe Avenue to Palm/Alabama on the south side of 3rd Street; to the west is a mix of commercial, residential and light industrial uses; to the north is primarily residential uses, with some schools (institutional/public uses) and undeveloped property; and to the east is Interstate 210 and east of the 210 are undeveloped property and commercial uses. Note that two drainage features are located within the AGSP area, the City Creek channel (which is located within the AGSP eastern boundary) and City Creek Bypass channel, which extends east to west from City Creek to Warm/Twin Creek through the southern portion of the AGSP).

Finally, the AGSP project area is already experiencing the transition to light industrial uses as three modest-sized light industrial warehouses are being finalized or occupied east of Victoria Avenue; and immediately south of the project area the Amazon Air Regional Air Hub (Amazon) has initiated operations, and the City of San Bernardino has approved a new 1.15 million square foot light industrial warehouse (currently under construction), immediately east of the Amazon facility, south of Third Street, but north of the Airport boundary.

4.12.4 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?

4.12.5 Methodology

The following evaluation analyzes the proposed project's consistency with regional and local plans, policies and regulations for the purposes of avoiding or mitigating an environmental effect. Specifically, the proposed project was analyzed with respect to applicable regional planning guidelines and strategies of SCAG's RTP/SCS, and local plans, including the General Plans of the cities of Highland and San Bernardino.

4.12.6 Environmental Impacts

LU-1 Would the project physically divide an established community?

The AGSP occupies about ½ mile of territory north of the SBIA, from Tippecanoe Avenue on the west to the I-210 Freeway on the east. Land to the south of the AGSP consists of the San Bernardino International Airport or land adjacent to the west side of the Airport managed by the IVDA. Land to the north of the AGSP corridor consists of primarily residential uses located north of 6th Street. The transition of the area to Mixed Use Business Park uses may be considered to create a physical barrier within an established community. However, the project area is traversed by six major north-south streets (from west to east, Tippecanoe, Del Rosa, Sterling, Victoria, Central and Palm). Further, the proposed land uses will function as an effective sound and activity barrier between the Airport, the 3rd and 5th Street corridors, and more sensitive residential land uses to the north. Thus, it is concluded that the proposed AGSP will not physically divide an established community because for about the past 80 years, the physical airport has remained a separate, special use facility that, while a part of and a contributing member of the cities of Highland and San Bernardino, has not functioned as part of the neighborhood/community within which the AGSP planning area is located. Two residential neighborhoods (Tippecanoe Avenue and 6th Street) will gradually be transitioned to different uses (residential to business park uses), but the replacement uses will result in a physical division of these neighborhoods from existing and proposed uses. These new uses will become a new community of uses that result in less conflict with operations at Airport and activities supported by the Airport north of 3rd Street.

Thus, the proposed project would both disrupt and not disrupt the physical arrangement or character of an established land use pattern or existing community. With a few exceptions the vast majority of acreage within the AGSP area is currently designated for business park and light industrial land uses (Refer to Table 3-1, located in Chapter 3 of this DEIR). The proposed AGSP will be consistent with the land use designations particularly when each City's General Plan land use designations are taken into consideration. On the other hand, under present conditions historic urban/suburban uses have been established in a random pattern in the within the boundary of the AGSP. The proposed project will convert the existing project area into a more intensely developed urban site. Older residential areas in the Tippecanoe and 6th Street neighborhoods will be disturbed by the transition from residential uses to business park/light industrial uses. The proposed project would facilitate a revision of the land uses in the AGSP corridor and will result in a transition to a more intensely developed urban community in a manner consistent with most of the existing General Plan designations. Existing lower density residential properties north and west of the site would not be isolated from other lower density residential properties as a result of the project's implementation. As stated previously, the proposed AGSP project design includes buffers around the boundaries which abut lower density residential uses designed to provide a transition between higher and lower intensity of area uses in the two cities. The change in character would be consistent with the General Plan vision for both the AGSP plan area and the general area, and **impacts would be less than significant**. No additional mitigation

measures are required than those included requiring installation of buffers between incompatible land uses.

LU-2 Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

SCAG RTP/SCS

SCAG's 2020-2045 RTP/SCS Plan (titled Connect SoCal) identifies coordinated transportation and land use planning strategies intended to reduce greenhouse gas ("GHG") emissions in accordance with SB 375 and to benefit regional quality of life. Connect SoCal Plan emphasizes placing higher intensity housing and jobs in locations with existing high-quality transit infrastructure that make daily travel via transit or active transportation (biking, walking, etc.) feasible and attractive alternatives to single occupancy vehicle travel. Specific metrics identified in the SCAG Facts About California's Sustainable Communities Plans¹ (Fact Sheet) include the following forecasts: 2/3 of new housing will be multi-family by 2035; over 60% of all jobs will be within High Quality Transit Areas (HQTAs) by 2035; over half of new homes and jobs will be within walking distance of transit; fewer drive-alone trips and more transit use, biking and walking and HOV (high occupancy) trips; average auto trip length decreases; and per capita vehicle miles traveled (VMT) decreases.

The California Air Resources Board ("CARB") Technical Evaluation of the Greenhouse Gas Emission Reduction Quantification for the Southern California Association of Governments' SB 375 Sustainable Communities Strategy (SCS) dated May 2012 notes that SCAG's SCS relies on the following key policies and strategies:

- Focusing new growth in existing and emerging population centers and along major transportation corridors;
- Creating significant areas of mixed-use development and walkable communities;
- Targeting growth around existing and planned transit stations; and
- Preserving existing open space and protecting established residential areas.

The CARB Evaluation further states, "The preferred alternative is believed to meet demand for a broader range of housing types, with new housing and land use focused on the development of smaller lot single-family homes, townhomes, and multi-family condominiums and apartments." The proposed project appears to conform to the metrics identified in the fact sheet by providing an expanded employment node within an existing population center (Cities of Highland and San Bernardino) and in close proximity to major transportation corridors (within approximately two miles of three interstate freeways, I-10, I-210 and I-215 and an international airport). Additionally, Fifth and Third Streets are important east-west transportation corridors and Sterling, Victoria and Palm are important north-south corridors. Several of these streets currently provide bicycle lanes and bus stops within the AGSP planning area and as these streets are improved in conjunction with job producing uses the potential exists to substantially enhance and expand bicycle and bus mass transit service within the project area as demand for this service increases with future development.

The proposed AGSP does not preserve existing residential areas or units within the planning area over the long-term due to potential for conflicts with such residential uses being located directly

¹ http://www.arb.ca.gov/cc/sb375/scag_fact_sheet.pdf

adjacent to the San Bernardino International Airport (SBIA). The proposed project seeks to create a buffer between the SBIA and residences to the north. Thus, implementation of the AGSP will not protect established residential areas within the planning area. However, mitigation is provided to provide relocation assistance to retain the population with the local cities. Furthermore, the rationale for the elimination of residential units within the AGSP area is to minimize future areas of potential land use conflict between the Mixed Use Business Park uses and residents. The goal is to ultimately create only one area that will require extensive buffering, i.e., between the north and south sides of 6th Street within the AGSP area. Mitigation measure **AES-5** describes some of the potential buffering techniques between the two sides of 6th Street that will be implemented to minimize potential land use conflicts between residential land uses to the north and Mixed Use Business Park uses to the south. Further, routine heavy-duty truck traffic will not be allowed on 6th Street, except for local deliveries. The goal is to intentionally direct this truck traffic to 3rd and 5th Streets, which, under the proposed AGSP, would be away from residential areas. However, as development progresses in the future, it is probable that conflicts between Mixed Use Business Park uses and residences will occur. This issue is more fully addressed below.

The following evaluation is provided to determine consistency between Connect SoCal Goals and the proposed project.

RTP/SCS/Connect SoCal Goal 1: Encourage regional economic prosperity and global competitiveness.

Consistent. At the broad scale, Goal 1 appears to be referring to ensuring job growth and support of the region's contribution to global competitiveness. At the project specific level, it would appear that this policy refers to the increased acreage allocated to Mixed Use Business Park development; the enhanced infrastructure improvements that are required to support the future AGSP development; and regional economic development and competitiveness within the project area, including the potential for over 9 million square feet of Mixed Use Business Park development that can support an estimated 5,000 jobs or more. Although designed to serve the AGSP planning area, these improvements and the inclusion of commercial, industrial and business uses as part of the project land use mix enhance the ability of the project to improve the area and regional economy and the ability to support the region's competitiveness. Therefore, the project is consistent with and supports RTP/SCS Goal 1.

RTP/SCS/Connect SoCal Goal 2: Improve mobility, accessibility, reliability, and travel safety for people and goods.

Consistent. The proposed project is a Specific Plan for development of about 478 acres of Mixed Use Business Park uses. One consequence of the development will be to construct the local roadways and infrastructure to their ultimate design in both cities. As more development occurs, it is also anticipated that additional bus routes will be established and bus schedules will be enhanced with tighter headways. Bicycle routes will also be enhanced throughout the AGSP to provide more modes of transportation to and through the project area. Both the cities and the IVDA can coordinate with Omnitrans to provide better mass transit through the plan area as growth occurs. It is not possible to compel Omnitrans to provide such service, but mitigation measure (MM) **PH-1** requires the AGSP participant jurisdictions to initiate discussions with the Omnitrans to induce it to extend higher quality service into the plan area. Combined with the project area's proximity to three regional freeways, the proposed project can improve mobility, accessibility, and reliability. Also, by enhancing circulation system infrastructure throughout the project area, the project can also enhance overall travel safety for the area. Therefore, the project is consistent with and supports RTP/SCS Goal 2.

RTP/SCS/Connect SoCal Goal 3: Enhance the preservation, security, and resilience of the regional transportation system.

No Conflict Identified. Access to the regional transportation system is considered one of the primary assets for the AGSP planning area. Employee work-related trips and business trips will use the regional transportation system on a daily basis. Refer to Subchapter 4.18, Transportation, for detailed information. Through payment of gas taxes for project-related trips, future projects will provide indirect support for the regional transportation system. At the present time, there is no mechanism for future development to provide direct support to the regional transportation system in the City of San Bernardino; In the City of Highland the Development Impact Fee Schedule includes a "Regional Circulation System" fee for all new developments and expansions over 499 sf. For Industrial development, the fee is \$10.69/sf. By working with Omnitrans to enhance future bus transit into and through the project area, the proposed project can connect with and enhance the preservation and resilience of the regional bus system through connections to the regional bus transportation system and to Metrolink in San Bernardino.

RTP/SCS/Connect SoCal Goal 4: Increase person and goods movement and travel choices within the transportation system.

Consistent. Please refer to the discussion under Goal 1 above. It is anticipated that a substantial amount of square footage within the AGSP will consist of light warehouses that will support goods movement. To a limited extent, the future roadway improvements within the AGSP and the anticipated expansion of bus service to the project area will increase travel options for the public in general. Based on these findings, the implementation of the AGSP is considered to be consistent with Goal 4.

RTP/SCS/Connect SoCal Goal 5: Reduce greenhouse gas emissions and improve air quality.

Consistent. The AGSP requires incorporation of design measures to reduce greenhouse gas and air pollutant emissions with the goal of meeting State and regional programs to be consistent with RTP/SCS/Connect SoCal Goal 5. Specifically, mitigation measures include the following: purchase electric trucks; provide electric vehicle charging stations; use of onsite electric yard equipment; direct support for employee car-pooling; direct support for use of alternative modes of transportation, including pedestrian, bicycle and bus; constructing buildings to at a minimum meet current or future Title 24 buildings standards, or better; and a requirement to incorporate onsite solar energy generation, unless demonstrated to be infeasible. Based on these findings, the implementation of the AGSP is considered to be consistent with Goal 5.

RTP/SCS/Connect SoCal Goal 6: Support healthy and equitable communities.

Consistent. Much of the AGSP is already designated for Industrial, Business Park or Commercial uses. Refer to Tables 3-1 and 3-2 for a summary of existing and proposed land uses, respectively. The purpose of the AGSP is to create a coherent plan for development within the planning area to provide jobs and to define a concept and funding mechanism(s) to install the necessary infrastructure required to support the proposed land uses. In doing this, the AGSP can support a more equitable community as envisioned under this goal.

On the other hand, employment nodes often include land uses and an intensity of uses that can conflict with "healthy" community support. Regardless, as outlined in the response to Goal 5, future development within the AGSP incorporates many current measures to reduce conflicts with

healthy communities, including separation of goods movement corridors (3rd and 5th Streets) from residual residential uses north of 6th Street. Because of the incorporation of these measures, the overall development of the AGSP can be considered supportive of Goal 6.

RTP/SCS/Connect SoCal Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network.

Consistent. Please refer to the Goal 3 discussion. As discussed under Goals 3 and 5, the AGSP establishes a foundation to adapt to changing climate and to support integrated regional development and the required future transportation network. Regarding support for an integrated regional development pattern and transportation network, a review of Chapter 3 of the Connect SoCal document did identify the general project area as a Priority Growth Area and a Job Center. Exhibit 3.4 shows a Job Center in the general area of the San Bernardino International Airport; Exhibit 3.6 shows the area near the I-210 and I-10 interchange as a general Job Center with between 25,001 and 50,000 total employment; and the area around the I-215 and I-10 corridors in San Bernardino and Redlands as a Transit Priority Area (2045). Given the potential for more than 5,000 jobs within the AGSP planning area, it is logical to conclude that this project will support both regional development in the general area and the transportation network.

RTP/SCS/Connect SoCal Goal 8: Leverage new transportation technologies and data-driven solutions that result in more efficient travel.

No Conflict Identified. Aside from the expectation that bus service will be substantially increased as a result of AGSP implementation, and a requirement to integrate electric trucks, electric vehicle charging stations, electric yard equipment, and solar systems into future Mixed Use Business Park development, the proposed project does not really relate to new transportation technologies or other solutions to more efficient travel. These are minor contributions to more efficient travel, but overall the proposed project finding for Goal 8 is “no conflict identified.”

RTP/SCS/Connect SoCal Goal 9: Encourage development of diverse housing types in areas that are supported by multiple transportation options.

No Conflict Identified. The proposed project does not involve development of diverse housing types that would be supported by multiple transportation options. It does provide support for relocation of existing residents of the AGSP area to the surround residential communities in both cities. Therefore, it poses no conflict with Goal 9.

RTP/SCS/Connect SoCal Goal 10: Promote conservation of natural resources and agricultural lands and restoration of habitats.

No Conflict Identified. Based on the evaluations of natural resources and agricultural resources in this document, the proposed AGSP will not have a substantial adverse impact on either type of resource nor will it result in the need to restore any such habitats. An indirect impact of the AGSP is that by selecting an urbanized area to develop and redevelop job centers, developers seeking property for Mixed Use Business Park development will have sufficient land available without using undisturbed land that may contain such resources. However, based on the available data, a finding of “no conflict identified” is considered appropriate.

City of Highland General Plan

Implementing the project as proposed would alter the land use designations of the AGSP project area to Specific Plan (“SP”), with the primary identified land use designation identified as “Mixed Use Business Park.” This change reflects the objective of providing consistent development standards with adequate supporting infrastructure between 3rd and 6th Streets (south/north, the northern boundary becomes the south side of the City Creek Bypass channel east of Central) and Tippecanoe and Interstate 210 (west/east). The proposed project’s land use and planning impacts will result from converting developed and vacant land to higher intensity Mixed Use Business Park uses consistent with the General Plan vision and land use designations and intensities, as modified by the AGSP. Approval of the proposed project will cause an intensification of development greater than that which presently occurs within the planning area.

Land Use Element

In the following discussion, the Land Use Goals outlined in the City General Plan are restated and addressed with respect to potential consistency and/or conflict with the goal. To set the context for the following evaluation, the following text establishes a framework for considering Highland’s Land Use Element goals: *“As Highland has begun its growth into the new millennium, new opportunities have matured and will wield even greater influence: completion of Interstate 210 (I-210) over the next several years; development potential in the easterly canyon portion of the City, including the Seven Oaks Dam property; continued infill development in the western portion of the City; Gradual expansion of the San Bernardino International Airport; and increasing housing demand, especially in higher value housing. These and other potentials, such as the enhancement of commercial retail opportunities and expanding Highland’s employment base, have provided much of the stimulus for the direction established by the Land Use Element.”*

Goal 2.1: Create opportunities for a diverse population to interact, exchange ideas, and establish and realize common goals as a unified community.

No Conflict Identified. The Mixed Use Business Park land use designation includes the ability to develop hotels and restaurants, personal services, and retail sales. In this milieu it is possible that opportunities to support human interaction may occur, but that is not the primary purpose of the AGSP. Implementation of the AGSP does not conflict with Land Use Element Goal 2.1, but it does not directly support this goal. Thus, based on the available data, a finding of “no conflict identified” is considered appropriate.

Goal 2.2: Preserve and enhance the quality and character of Highland’s existing residential neighborhoods.

Consistent. The project does not provide direct support for this goal, as the AGSP envisions the creation of a job generating area under the Mixed Use Business Park designation under the AGSP. The AGSP will also result in replacing two existing residential areas, totaling about 760 residential units, many of which do not conform to the underlying land use designation (non-conforming land uses). Much of the residential neighborhood near Tippecanoe Avenue is already designated for a mix of Industrial, Business Park, and Commercial uses in the City of Highland General Plan. However, the residential neighborhood in the AGSP east of Victoria and north of 5th Street is designated in the General Plan for single- and multi-family residential uses. The AGSP proposes to change the General Plan designation for this area to Mixed Use Business Park and the residences in this area would be eliminated over time with implementation of the Specific Plan.

This change in land use has a potential to be inconsistent with Goal 2.2.

To offset this potential conflict, the City will implement two mitigation measures, measures **PH-1** and **LU-1**, which incorporate two housing offset mechanisms. Under Measure **PH-1** the local jurisdictions will establish a relocation support program. Overland Pacific Corporation has crafted a model relocation plan that shall be implemented by the cities and developers when occupied residential properties are acquired for conversion to Mixed Use Business Park uses. Implementation of Measure **PH-1** will facilitate relocation of both single-family residents that own their homes and single family and multi-family residents that rent their units. The objective of this program is to ensure that displaced residents in the AGSP planning area are able to remain within the general community in comparable housing.

The following background information is provided regarding SB 330 which appears to apply to the existing Victoria residential neighborhood (between 5th and 6th Streets east to Central Avenue) and the San Manuel-owned undeveloped property located west of Victoria between 6th Street and 3rd Street, which is designated for Multi-family use in the City of San Bernardino. Based on review of the City of Highland General Plan Land Use Map (Figure 4.12-1), the residences located east of Tippecanoe between 6th Street and 3rd Street are not subject to SB 330 because the City of Highland had in the 2005 General Plan assigned Industrial, Commercial, and Business Park designations to this area located at the west end of the AGSP. The following summary information regarding SB 330 is abstracted from a recently published LAFCO document:

(footnote: A RESOLUTION OF THE COUNTY OF SAN BERNARDINO LOCAL AGENCY FORMATION COMMISSION, CERTIFYING THAT THE COMMISSION HAS CONSIDERED THE ENVIRONMENTAL EFFECTS IDENTIFIED IN THE ENVIRONMENTAL IMPACT REPORT (SCH # 2018011008) FOR THE I-15 LOGISTICS PROJECT; ADOPTING ENVIRONMENTAL FINDINGS PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT; AND ADOPTING A STATEMENT OF OVERRIDING CONSIDERATIONS)

Pursuant to Senate Bill 330 (SB 330), also known as the Housing Crisis Act of 2019 (the "Act"), a local agency is prohibited from disapproving, or conditionally approving in a manner that renders infeasible, a housing development project for very low, low-, or moderate-income households or an emergency shelter unless the local agency makes specified written findings based on a preponderance of the evidence in the record. Further, Government Code Section 66300(b)(1)(A) stipulates that agencies shall not "chang[e] the general plan land use designation, specific plan land use designation, or zoning...to less intensive use...below what was allowed under the land use designation and zoning ordinances in effect on January 1, 2018". For purposes of Government Code Section 66300(b)(1)(A), a "less intensive use" includes, but is not limited to, reductions to height, density, or floor area ratio, new or increased open space or lot size requirements, or new or increased setback requirements, minimum frontage requirements, or maximum lot coverage limitations, or any changes that would lessen the intensity of potential housing development. However, the Act includes an exception, and general plan and zoning designation changes to a "less intensive use" are permitted so long as the agency concurrently changes the development standards, policies, and conditions applicable to other parcels within the jurisdiction, such that there is no net loss in residential capacity. (Govt. Code § 66300(i).)

Based on the above information, the loss of residential units will need to be offset in both jurisdictions, Highland and San Bernardino. In order to comply with SB-330, the City of Highland will need to shift an estimated 748 residential units to other properties in the City of Highland and the City of San Bernardino will need to shift 12 residential units to other properties in the area. MM **LU-1** requires that prior to implementation of any future specific project under the AGSP that

affect residential area, each city will complete this shift of units to alternative locations. Thus, with implementation of MMs **PH-1** and **LU-1**, the proposed project is considered consistent with Goal 2.2.

Goal 2.3: Provide a variety of urban, suburban and rural housing opportunities that are adequate to meet the City's share of regional housing needs.

No Conflict Identified. The proposed project does not include a residential component. The whole area will be developed under the Mixed Use Business Park land use designation which allows hotels and restaurants, personal services, and retail sales, in addition to offices and light industrial uses.

This goal is more directed at the City of Highland to ensure a wide range of residential uses are provided by the City. Indirectly, under MM **LU-1**, the City has the opportunity to enhance the provision of urban density housing by allocating the units lost in the Victoria-Central residential area to higher density development in the core area of the City. Regardless, based on the available data, a finding of "no conflict identified" is considered appropriate.

Goal 2.4: Provide lands for retail and service commercial uses in sufficient quantity to meet the needs of Highland residents.

Consistent. The proposed AGSP converts some of the land allocated to residential uses in the Victoria to Central (between 5th and 6th Streets) to Mixed Use Business Park use which allows hotels and restaurants, personal services, and retail sales, in addition to offices and light industrial uses. The proposed project is consistent with this policy because it will provide the ability to develop additional retail and service uses that can support City residents as well as the envisioned influx of workers and visitors. Based on the available data, a finding of consistency with Goal 2.4 is considered appropriate.

Goal 2.5: Promote a mix of attractive employment-generating areas with a mix of uses that provide a sound and diversified economic base and that are compatible with the community's overall residential character.

Consistent. As demonstrated throughout this section of the Draft EIR, the project area has been and is designated as one of the most important employment-generating areas within the City. The majority of the project area is presently designated for Business Park, Commercial and Industrial uses. The AGSP expands the planning area's potential to provide such uses and provides the foundation to complete the infrastructure required to support a more rapid transition to employment-generating development. Mitigation measures identified under Aesthetics, particularly measure 4.2-5, have been imposed to provide adequate buffers between the AGSP planning area and remaining residential uses on the north side of 6th Street. This, plus incorporation of site-specific buffer measures, results in a finding of consistency with Goal 2.5.

Goal 2.6: Maintain an organized pattern of land use that minimizes conflicts between adjacent land uses.

Consistent. One of the objectives of the AGSP is to create an organized pattern of land use north of the San Bernardino International Airport. At the present time the underlying land use designations generally support uses compatible with the Airport, but actual existing land uses contain a greater mix of residential land uses than either City prefers. The text in the discussions of Goals 2.2, 2.3 and 2.5 describe the measures that will be implemented within the AGSP

planning area to minimize conflicts between adjacent land uses. Thus, based on the available data, a finding of consistency with Goal 2.6 is considered appropriate. The AGSP will create a job generating buffer of land uses between the Airport and residential uses to the north. Some existing residential uses will be replaced to separate the AGSP and Airport activities from residential uses. Instead of having several locations where boundary conditions between land uses exist, there will only be one primary buffer area required to be installed and maintained on 6th Street. The proposed AGSP will enhance overall organization of land use in a manner that will minimize conflicts between land uses within the general area over the long term.

Goal 2.7: Encourage natural resource and open space conservation through appropriate land use policies that recognize their value and through the conservation of areas required for the protection of public health and safety.

No Conflict Identified. Based on the evaluations of natural resources and open space resources in this document, the proposed AGSP will not result in a significant adverse impact to either type of resource. An indirect impact of the AGSP is that by selecting an urbanized area to develop and redevelop, developers seeking property for Mixed Use Business Park development will have sufficient land available without having to resort to undisturbed land with such resources to develop. However, this constitutes indirect support for Goal 2.7, not direct support for natural resources and open space conservation. Thus, based on the available data, a finding of “no conflict identified” is considered appropriate.

Goal 2.8: Coordinate land use planning programs between local, regional, state and federal jurisdictions.

No Conflict Identified. The proposed project does not involve other levels of government jurisdiction (local jurisdictions and other local governmental agencies, San Manuel and EVWD). This goal is primarily directed at the two cities and the IVDA. Therefore, based on the available data, a finding of “no conflict identified” is considered appropriate.

Goal 2.9: Establish and maintain logical City boundaries that reflect existing service capabilities, social and economic independence, citizen desires and City costs and revenues.

No Conflict Identified. A review of Figures 4.12-1 and 4.12-3 demonstrates the complex boundaries for the cities of Highland and San Bernardino within the AGSP planning area. As previously described, the current City boundaries reflect the older City of San Bernardino boundary that existed when the City of Highland was incorporated in 1987. However, the AGSP transcends the existing City boundaries by establishing a common land use over the approximately 678-acre planning area and a common approach to development within the Specific Plan area. This goal is primarily directed at the City itself. Therefore, based on the available data, a finding of “no conflict identified” is considered appropriate.

Highland Community Policy Areas

Goal 2.10 Create a new Town Center where Highland Residents, employees and visitors can live, shop, work, recreate and socialize in a vibrant, safe and pedestrian friendly environment.

No Conflict Identified. The proposed AGSP project area is located about ½ mile south of the Town Center area. Thus, it has no potential to adversely impact Goal 2.10. Therefore, based on the available data, a finding of “no conflict identified” is considered appropriate.

Goal 2.11 Revitalize the Base Line Corridor by concentrating commercial uses at strategic intersections and by redeveloping aging, mid-block commercial areas with new residential development.

No Conflict Identified. The proposed AGSP project area is located about ½ mile south of the Base Line Corridor. Thus, it has no potential to adversely impact Goal 2.11. Therefore, based on the available data, a finding of “no conflict identified” is considered appropriate.

Goal 2.12: Create a signature, mixed-use master-planned community that integrates commercial, office and residential uses in a unique environmental setting.

No Conflict Identified. The proposed AGSP project area is located about ¼ mile west of the Golden Triangle area. Thus, it has no potential to adversely impact Goal 2.12. Therefore, based on the available data, a finding of “no conflict identified” is considered appropriate.

Goal 2.13 Transform the 5th Street Corridor into a major employment center and gateway to the San Bernardino International Airport.

Consistent. The proposed AGSP project area coincides with the 5th Street Corridor as shown in the City Land Use Element, page 2-38. The purpose of the AGSP is to facilitate the transition of the Corridor to function as a major employment center and gateway to the San Bernardino International Airport (SBIA). Therefore, based on the available data, a finding of consistency is considered appropriate.

Goal 2.14 Establish the Victoria Avenue as the major entryway to the San Bernardino International Airport.

Consistent. The proposed AGSP project area encompasses the southern portion of the Victoria Avenue Corridor as shown in the City Land Use Element, page 2-40. The City of Highland has already made major improvements in Victoria Avenue, including from 6th Street south to the SBIA north boundary. The purpose of the AGSP is to facilitate the transition of the Victoria Avenue Corridor, including infrastructure improvements to support Victoria Avenue as a major entryway to the SBIA. Therefore, based on the available data, a finding of consistency is considered appropriate.

Public Health, Safety, and Environmental Justice Element

The Highland City Council adopted a new Public Health, Safety & Environmental Justice Element earlier this year (2022). This Element of the General Plan guides the City in creating a safe and healthy place for everyone, and as it handles the issue of Environmental Justice, a close analysis is provided herein to ensure consistency with the City’s Goals and Policies pertaining to Environmental Justice. In the following discussion, the Public Health, Safety, and Environmental Justice Element Goals outlined in the City’s General Plan are restated and addressed with respect to potential consistency and/or conflict with the goal.

Goal 1 Protect the health of community members by improving air quality.

Consistent. The City of Highland Policies under this Goal include reducing air pollution from mobile sources and reducing localized air pollution exposure near major roads. The action items under reducing air pollution from mobile sources include promoting: electric vehicle charging stations, fleet management, preferential parking, and warehouse standards. The AGSP would

require mitigation measures to reduce greenhouse gas and air pollutant emissions with the goal of meeting State and regional programs to be consistent with the City of Highland General Plan. Specifically, mitigation measures include the following: purchase electric trucks; provide electric vehicle charging stations; maximization of planting drought tolerant trees in landscaping; and, the City Staff and the Applicant will work together to ensure the location is most efficient and prominent position also viable for access to utilities and ingress/egress as the City would review each project for consistency. Based on these findings, the implementation of the AGSP is considered to be consistent with Goal 1, Policy 1.1.

The action items under reducing localized air pollution exposure near major roads: air filters in existing homes and schools within 1,000 feet of a major road, and creation of a clean air checklist for new development of sensitive land uses within 1,000 feet of a major road. The AGSP would not develop any new sensitive land uses, and therefore would not conflict with the City of Highland General Plan Policy 1.2, Action 1.2b. Action 1.2a pertains to obtaining grant funding for installation of HEPA filters. As the proposed project is not a publicly funded project, grant funding would not apply. Based on these findings, the implementation of the AGSP is would not conflict with Goal 1, Policy 1.2.

Goal 2: Promote a built environment that stays cool.

Consistent. The City of Highland Policies under this Goal include promote a healthy urban forest to reduce air pollution and extreme heat, and adopt policies and standards for the built environment that reduce urban heat island. The action items under promote a healthy urban forest to reduce air pollution and extreme heat include promoting: climate appropriate trees, diverse urban forest, increase tree canopy, street tree prioritization, and tree planting in disadvantaged communities (DACs). The AGSP itself contains standards and design guidelines that require streetscape improvements, contains an approved plant and tree list that has been approved by the Cities of Highland and San Bernardino, and requires the use of drought tolerant or native tree species. Thus, the AGSP has been designed to meet the City of Highland General Plan Goal 2, Policy 2.1. Furthermore, as the proposed project has been identified by CalEnviroScreen—a mapping tool that helps identify California communities that are most affected by many sources of pollution, and where people are often especially vulnerable to pollution’s effects (refer to Figure 4.12-1)—as a DAC, the specifications and requirements provided in the AGSP for future development under the AGSP would result in tree planting within a DAC, thus further meeting the City of Highland’s General Plan Goal, Policy, and Action pertaining to urban forest.

The action items under adopt policies and standards for the built environment that reduce urban heat island include promoting: green development, cool zones, and low-income weatherization programs. The AGSP would require mitigation measures that would be consistent with the City of Highland General Plan. Specifically, mitigation measures include the following: require light colored paving and roofing materials and encourage cool or green roofs new buildings. The AGSP would facilitate the upkeep and upgrades to existing parks, in addition to the potential creation of new of park and recreational facilities through funds contributed by future developers of projects within the AGSP required by MM **REC/PK-1**. This would ensure that future development under the AGSP would contribute to cool zones within the City and AGSP planning area. While the proposed project would not directly contribute to low-income weatherization programs, the AGSP will implement two mitigation measures, MMS **PH-1** and **LU-1**, which incorporate two housing offset mechanisms. Under MM **PH-1** the local jurisdictions will establish a relocation support program; the objective of this program is to ensure that displaced residents in the AGSP planning area are able to remain within the general community in comparable housing. MM **LU-1** requires that prior to implementation of any future specific project under the AGSP that affect residential

area, each City will complete this shift of units to alternative locations. Thus, with implementation of MMs **REC/PK-1**, **PH-1** and **LU-1**, the proposed project is considered consistent with Goal 2.

Goal 3: Minimize risks, such as loss of life, injury, property damage, and natural resource destruction from natural and human-caused hazards.

Consistent. The City of Highland Policies under this Goal include minimize flooding risks through appropriate siting and protection of structures and occupants, build and maintain public infrastructure that collects and conveys stormwater and enhances water quality, implement programs and standards to mitigate wildfire risk in high wildfire hazard severity zones, ensure that public facilities and infrastructure have adequate capacity to respond to wildfires and other relevant hazard events, enforce development standards to reduce geologic risk, prioritize seismic retrofits of buildings that pose the greatest risk, and limit the potential hazards from the transportation and disposal of hazardous waste. The AGSP itself would include improvements to stormwater collection and conveyance systems, and thus would be consistent with Policy 3.1 and Policy 3.2. CAL FIRE has not designated the ASGP Planning Area as having any fire severity rating, and also would facilitate expansion of water availability through improved infrastructure within the AGSP Planning Area, thus the proposed project will not contribute to wildfire risk, and would not conflict with Policy 3.3 or Policy 3.4. The AGSP, as demonstrated under Subchapter 4.8, Geology and Soils, would meet action items under Policy 3.5 and Policy 3.6, as any future development would be subject to review by the jurisdiction in which the project is proposed, and this includes providing the required geotechnical data. Finally, as demonstrated under Subchapter 4.10, Hazards and Hazardous Materials, would meet action items under Policy 3.7, as any future development would be subject to MMs **HAZ-1**, **HAZ-2** and **HAZ-3**, which would ensure safe hazardous materials storage and transport, and require hazardous materials business plans for every project that stores and transports hazardous materials. Based on these findings, the implementation of the AGSP is considered to be consistent with Goal 3.

Goal 4: Maintain adequate emergency preparedness and response capabilities.

Consistent. The City of Highland Policies under this Goal include create culturally appropriate hazard preparation and education, create resilience centers throughout Highland, prepare residential areas for flooding and wildfire, and ensure the Emergency Operations Center (EOC) has adequate capacity to respond to hazard events. The Policies under this Goal generally apply to actions that must be taken by the City of Highland to reach out to the community. Thus, the proposed implementation of the AGSP is anticipated to not conflict with Goal 4.

Goal 5: Improve the quality of the built and natural environments to reduce disparate health and environmental impacts.

Consistent. The City of Highland Policies under this Goal include adopt land use regulations that protect residential and park uses from the impacts of industrial and roadway pollution and remediate and prevent pollution arising from industrial and household sources. As stated under the Goal 2 discussion, the AGSP would facilitate the development of park and recreational facilities through funds contributed by future developers of projects within the AGSP required by MM **REC/PK-1**. This would ensure that future development under the AGSP would contribute to the development of park and recreational facilities that are sited within areas that are deemed appropriate by the corresponding City.

Action Item 5.1b supports a City established monitoring program to evaluate health and environmental impacts from residential and park uses to industrial areas in DACs, such as much

of the land area within the AGSP. Action Item 5.1c disallows the siting and construction of new industrial uses that could impact the health of residents in the DACs. The AGSP approaches buffering future Mixed Use Business Park uses from existing residents during the transition period that will occur as the AGSP is built out and from residents located outside of the AGSP area in a number of ways. First, under Subchapter 4.2, Aesthetics, MM **AES-2**, requires landscaping to incorporate buffer concepts identified in both City General Plans, and for development under the AGSP to buffer the industrial uses on the south side of 6th Street from the residential uses on the north side of 6th Street. MM **AES-5** requires “buffer designs” on 6th Street to minimize conflicts between land uses. While these measures are aesthetic in nature, the ultimate implementation will serve to ensure a buffer between industrial and sensitive land uses, thereby ensuring a minimization of potential health risk to sensitive receptors as a result of AGSP development.

Another means by which the AGSP approaches buffering is to minimize mobile source emissions along residential roadways. MM **HAZ-1** would ensure that the cities of Highland and San Bernardino shall jointly designate 3rd and 5th Streets within the AGSP project area as truck routes. 6th Street shall be designated for local deliveries only except where projects are located at major intersections such as Victoria and 6th Street. In this and similar scenarios, 6th Street near the intersection would accept truck traffic. Specific design guidelines for new industrial buildings fronting on 6th Street shall incorporate buffers to reduce potential conflicts between the industrial uses that are south of 6th and residential uses north of this roadway. Furthermore, MM **AQ-15** would require individual project applications within the Specific Plan that generate more than 100 diesel truck trips per day or other toxic air contaminants (TACs), to submit a health risk assessment (HRA) to the City prior to future discretionary project approval. Based on these findings, the implementation of the AGSP is would not conflict with Goal 5.

Goal 6: Ensure access to healthy food.

Consistent. The City of Highland Policies under this Goal include promote the growing of fruits and vegetables by local residents, and Use City resources to publicize healthy food and food assistance programs. The Policies under this Goal generally apply to actions that must be taken by the City of Highland to reach out to the community, or amend the Zoning Code to enable the actions put forth under these Policies to come into fruition. Thus, the proposed implementation of the AGSP is anticipated to not conflict with Goal 6.

Goal 7: Ensure safe and sanitary housing for DAC residents.

Consistent. The City of Highland Policies under this Goal include promote improvements and rehabilitation of unsafe housing in DACs, while actively preventing displacement, and adopt standards and policies that maintain safe and sanitary housing. The action items under these Policies generally apply to actions that must be taken by the City of Highland to create programs to facilitate the implementation of this Goal. Thus, the proposed implementation of the AGSP is anticipated to not conflict with Goal 7.

Goal 8: Ensure that parks, public facilities and services are equitably located and distributed throughout DACs, allowing easy access for residents.

Consistent. The City of Highland Policies under this Goal include improve existing park quality by providing amenities and programs for play, exercise, and enhanced safety, prioritize efforts that can be deployed quickly in under-parked communities, Expand park availability by converting underutilized land, and create inviting public spaces in DACs where people feel safe during the day and night for everyday play, family gatherings, and community events. The action items under

this goal include promoting: park access, park activation, park programs, and community events. Many of these actions generally apply to actions that must be taken by the City of Highland to create programs to facilitate the implementation of this Goal. However, as previously stated, the AGSP would facilitate the development of park and recreational facilities through funds contributed by future developers of projects within the AGSP required by MM **REC/PK-1**. This would ensure that future development under the AGSP would contribute to the expansion of park access within the City. This same measure would also enable the City to expand park availability, and could aid in the facilitation of creating inviting public spaces in DACs whether within or outside of the AGSP Planning Area. The location of future parks created through the funds contributed through MM **REC/PK-1** would ultimately be determined by the City in collaboration with its residents. Ultimately, the proposed implementation of the AGSP is anticipated to not conflict with Goal 8.

Goal 9: Promote and ensure meaningful and effective participation and community capacity building in DACs, especially when developing, adopting, implementing, and enforcing plans and policies related to public health and environmental issues.

Consistent. The City of Highland Policies under this Goal include create transparent City processes and forms accessible to all residents, host City Council events focused on the issues facing DACs and encouraging additional community involvement, and support equitable and inclusive opportunities to build capacity and leadership skills for residents and organizations in DACs through continued civic engagement. The action items under these Policies generally apply to actions that must be taken by the City of Highland to create programs to facilitate the implementation of this Goal. However, the public outreach process undertaken by the stakeholders participating in the preparation of the AGSP and AGSP DEIR is planned to include community engagement through workshops, multi-lingual informational flyers to residents within and adjacent to the AGSP Planning Area, etc., with the intent of promoting and ensuring meaningful participation by the Community within and surrounding the AGSP Planning Area. Thus, the proposed implementation of the AGSP is anticipated to not conflict with Goal 9.

Goal 10: Prioritize improvements and programs that address the needs of residents in DACs.

Consistent. The City of Highland Policy under this Goal includes support and expand programs and services to prioritize those that identify DACs, address environmental justice issues, and foster partnerships with countywide partnerships and programs. The action items under these Policies generally apply to actions that must be taken by the City of Highland to create programs to facilitate the implementation of this Goal. However, as stated under the discussion under Goal 9, the public outreach process undertaken by the stakeholders participating in the preparation of the AGSP and AGSP DEIR is planned to include community engagement through workshops, multi-lingual informational flyers to residents within and adjacent to the AGSP Planning Area, etc., with the intent of promoting ongoing engagement with the Community within and surrounding the AGSP Planning Area. Thus, the proposed implementation of the AGSP is anticipated to not conflict with Goal 10.

City of San Bernardino General Plan

Implementing the project as proposed would alter the land use designations of the AGSP project area to Specific Plan ("SP"), with the primary identified land use designation identified as "Mixed Use Business Park." This change reflects the objective of providing consistent development standards with adequate supporting infrastructure between 3rd and 6th Streets (south/north, the

northern boundary becomes the south side of the City Creek Bypass channel east of Central) and Tippecanoe and Interstate 210 (west/east). The City of San Bernardino occupies a small portion of the AGSP planning area, located in the south-central portion of the project area immediately west and east of the Sterling Avenue. The proposed project's land use and planning impacts will result from converting developed and vacant land to higher intensity Mixed Use Business Park uses consistent with the much of the acreage in the Land Use Element of San Bernardino's General Plan vision and land use designations and intensities, as modified by the AGSP. Approval of the proposed project will cause an intensification of development greater than that which presently could occur within City of San Bernardino planning area.

Land Use Element

In the following discussion, the Land Use Goals outlined in the San Bernardino General Plan are restated and addressed with respect to potential consistency and/or conflict with the stated goal. The City of San Bernardino has not yet adopted a General Plan Element addressing Environmental Justice. It is assumed that the proposed project would, by meeting the City of Highland's Goals, Policies and Actions pertaining to Environmental Justice, ensure that impacts thereof have been addressed.

Goal 2.1: Preserve and Enhance San Bernardino's unique neighborhoods.

No Conflict Identified. The AGSP acreage in the City of San Bernardino (approximately 194 acres) presently contains three land use designations: commercial, industrial and multi-family. Refer to Figure 4.12-5. Actual land uses within San Bernardino's jurisdiction includes a mix of undeveloped land (primarily designated for multi-family uses), commercial uses and a few residences. The AGSP will re-designate the whole area to Specific Plan, Mixed Use Business Park uses. Due to the mixed jurisdiction and mixed uses in this area, the San Bernardino portion of the AGSP does not constitute an identifiable neighborhood. Therefore, based on the available data, a finding of "no conflict identified" is considered appropriate.

Goal 2.2: Promote development that integrates with and minimizes impacts on surrounding land uses.

Consistent. Refer to the discussion under Goal 2.2 of the Highland General Plan. About one-half of the property under San Bernardino's jurisdiction is currently vacant. There will be minimal conflicts between land uses in the City of San Bernardino because adjacent land uses will ultimately be compatible in both the short-term and long-term. In the short term there may be come conflicts between Mixed Use Business Park uses and a limited number of residences. The scope of such impacts is not as large as in the City of Highland, but where such land use incompatibility may occur in the City of San Bernardino, the mitigation identified under measures **PH-1** and **LU-1** are intended to compensate for such impacts.

Thus, the City will implement two MMs—measures **PH-1** and **LU-1**—which incorporate two housing offset mechanisms. Under MM **PH-1** the local jurisdictions will establish a relocation support program. Overland Pacific Corporation has crafted a model relocation plan that shall be implemented by the cities and developers when occupied residential properties are acquired for conversion to Mixed Use Business Park uses (refer to mitigation identified under Population and Housing). Implementation of MM **PH-1** will facilitate relocation of both single-family residents that own their homes and single family and multi-family residents that rent their units. The objective of this program is to ensure that displaced residents in the AGSP planning area are able to remain within the general community within comparable housing, should they choose to do so.

Based on the above information, the loss of residential units will need to be offset in both jurisdictions, Highland and San Bernardino. In order to comply with SB-330, the City of Highland will need to shift about 748 residential units to other properties in the general area and the City of San Bernardino will need to shift 12 residential units to other properties in the area. MM **LU-1** requires that prior to implementation of any project under the AGSP, each city will complete this shift of units to alternative locations. Thus, with implementation of MMs **PH-1** and **LU-1**, the proposed project is considered consistent with Goal 2.2.

Goal 2.3: Create and enhance dynamic, recognizable places for San Bernardino's residents, employees, and visitors.

Consistent. The AGSP envisions implementation of a key employment node in the immediate area north of the SBIA. It will introduce a mix of Industrial, Commercial and Business Park uses into the southern portion of both cities. The goal is to create a mix of uses that will support substantial employment and provide hotels and restaurants that will serve residents, employees, and visitors. Therefore, based on the available data, a finding of consistency with Goal 2.3 is considered appropriate.

Goal 2.4: Enhance the quality of life and economic vitality in San Bernardino by Strategic infill of new development and revitalization of existing development.

Consistent. Refer to the discussion under Goal 2.3. Implementation of the AGSP represents a strategic infill area for both cities and it can provide a substantial number of new jobs and revitalization of some older, stagnant developed areas in both jurisdictions if successfully developed. Over the long term, the quality of life for many residents within both cities should be enhanced through provision of new jobs and through implementation of MMs **PH-1** and **LU-1** and other proposed buffer measures, the potential land use conflicts or incompatibilities can be minimized. Therefore, based on the available data, a finding of consistency with Goal 2.4 is considered appropriate.

Goal 2.5: Enhance the aesthetic quality of land uses and structures in San Bernardino.

Consistent. The AGSP establishes design requirements (landscaping and structures) that define the aesthetic quality envisioned for future structures and the supporting community. It is anticipated that each City will adopt the AGSP and its design guidelines that will result in enhancement of aesthetic quality of the project area, relative to the current mix of older land uses and structures, illustrated in Subchapter 4.2. Therefore, based on the available data, a finding of consistency with Goal 2.5 is considered appropriate.

Goal 2.6: Control development and the use of land to minimize adverse impacts on significant natural, historic, cultural, habitat, and hillside resources.

Consistent. A review of the pertinent sections in this Draft EIR documents that the project area consists of an older human dominated landscape with minimal or no potential to support significant natural, historic, cultural, habitat or hillside resources. Also, as previously noted, implementation of the AGSP will facilitate development of Mixed Use Business Park uses that can be developed with minimal mitigation requirements for these resources, which may result in reducing overall impact on these natural resources within both jurisdictions. Therefore, based on the available data, a finding of consistency with Goal 2.6 is considered appropriate.

Goal 2.7: Provide for the development and maintenance of public infrastructure and services to support existing and future residents, businesses, recreation, and other uses.

Consistent. The AGSP includes a discussion of the infrastructure that will be needed to support its implementation for Mixed Use Business Park uses. Generally, infrastructure is forecast to be installed incrementally as development proceeds within the AGSP. However, a few of the future infrastructure facilities may require a collective approach to ensure that they are installed in a timely manner. The most important examples are the improvements to the City Creek Bypass channel that will collect and transport most of the runoff from the AGSP project area to Warm/Twin Creek (a regional flood control facility located just east of Waterman Avenue), and the signature elements of the AGSP, such as monuments, signage, etc. To address these areawide infrastructure issues, MM **LU-2** will be implemented. Refer to the specific text below.

With implementation of this measure a finding of consistency with Goal 2.7 is considered appropriate.

Goal 2.8: Protect life and property of residents, businesses, and visitors to the City of San Bernardino from crime and hazards of flood, fire, seismic risk, and liquefaction.

Consistent. All new facilities developed within the AGSP will be reviewed by the cities prior to approval and must meet current structural and infrastructure design requirements. The project area has no 100-year flood hazard areas within proposed development areas; the area is not subject to wildfire hazards; structural fire hazards will be minimized by building design review and installation of adequate fire flow infrastructure; there are no known active faults within the project area; and potential groundshaking and liquefaction design requirements will be identified through each city's design review process. Crime impacts can be mitigated through a mix of design, onsite security, and improved access to the project area for emergency responses as development progresses. Therefore, based on the available data, a finding of consistency with Goal 2.8 is considered appropriate.

Goal 2.9: Protect the airspace of the San Bernardino International Airport and minimize related noise and safety impacts on our citizens and businesses.

Consistent. The primary noise generating airspace at the SBIA occurs on the west and east sides of the Airport where takeoffs and landings patterns at the end of the primary runway occur. The AGSP is located on the north side of the Airport. There is some noise from Airport operations that extends into the AGSP project area, including, some aircraft turning movements. Regardless, the AGSP will transition to Mixed Use Business Park uses, which are less sensitive to Airport noise than existing residential uses. With less noise sensitivity resulting from the implementation of the AGSP, a finding of consistency with Goal 2.9 is considered appropriate.

Goal 2.10: Actively apply, enforce, and utilize the General Plan in the day-to-day activities of the City.

No Conflict Identified. The proposed project does not involve enforcement of the General Plan. This goal is primarily directed at the City itself. Therefore, based on the available data, a finding of "no conflict identified" is considered appropriate.

There are no additional Goals, but the San Bernardino General Plan does discuss some Strategic Policy Areas. None of these Areas include the AGSP project area. The SBIA is a Strategic Area that is discussed under this topic, but it does not extend the project area.

Conclusion

As discussed in detail above, once the cities of Highland and San Bernardino (CEQA Responsible Agencies) adopt the Specific Plan and any amendments to each City's General Plans and Development Code, as appropriate, and recognize the adopted CEQA document as certified by the IVDA, the proposed project is considered consistent with the relevant goals of the SCAG RTP/SCS and each City's General Plan Land Use Element Goals. As such, based on the available data and analysis presented in the preceding section, **impacts would be less than significant**. Three mitigation measures are required to be implemented to ensure the AGSP can be implemented in a manner consistent with the General Plans.

4.12.7 Mitigation Measures

AES-5: *The new AGSP development along 6th Street and Tippecanoe Avenue will occur in a transition area between light industrial/business park uses on the one side of the road and residential uses on the other. Both cities require "buffer designs" on 6th Street to minimize conflicts between land uses. Exterior lighting for AGSP development on 6th Street shall be designed to minimize conflicts with the residential uses on the north side of this roadway. Lighting plans shall be prepared by future developers that minimize light and glare impacts on adjacent residential properties and they shall be reviewed and approved by the city with jurisdiction as fulfilling the intent and purpose of this measure.*

LU-1: *Prior to implementation of any project under the AGSP, each city will complete the required shift of conforming residential units to alternative locations in both cities.*

LU-2: *Once the AGSP is adopted, the IVDA, City of Highland and City of San Bernardino will explore the establishment of a community facilities district, or comparable mechanism, to provide a source of funding for common infrastructure elements within the AGSP; to seek grant funds; and secure low-interests loans. This funding mechanism must be established within one year of approval of the AGSP by all three agencies*

PH-1: *For any development actions that may cause displacement of conforming residential occupants (relevant to both tenants and homeowners alike), the Developer shall prepare a relocation plan that complies with the requirements of the California Relocation Assistance Law, California Government Code Section 7260 et seq, and if federal funding is anticipated, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. As a component of the relocation plan, the Developer shall provide an explanation of the relocation requirements that they are complying with, and a detailed relocation plan consistent with one of the above-listed relocation guidelines to include:*

- 1. Introduction.*
- 2. Project description.*
- 3. Assessment of the relocation needs of persons subject to displacement.*
- 4. Assessment of available replacement housing units within proximity to the Project site.*
- 5. Description of the relocation program and guidelines to be followed; and*
- 6. Administrative Provisions to include:*
 - a. Informational Statement and Notices to be provided.*
 - b. Description of any citizen participation or outreach efforts.*
 - c. Grievance procedures.*

- d. Project schedule or timelines of any proposed displacement*
- e. Estimated budget to provide relocation benefits in accordance with the identified relocation program requirements.*

A sample outline of the components of the relocation plan to be prepared, incorporating the above, will include but not be limited to the outline, methodology, and information contained in the Model/Conceptual Relocation Plan Mitigation prepared by OPC (provided as Appendix 10 of Volume 2 of this DPEIR).

Before proceeding with and causing displacement of individuals and households, general notice of the relocation plan shall be provided, and notice shall be designed to reach the occupants of all properties to be displaced, and shall be provided 30 days prior to submission to the Agency for approval.

REC/

PK-1: *Future projects shall contribute funds to the City/Cities within which the proposed development is located that shall be allocated to maintaining, upgrading and/or developing parks and/or recreational facilities within the AGSP planning area or otherwise located within the corresponding City. The City of San Bernardino, City of Highland, and the Inland Valley Development Agency (IVDA) shall explore the establishment of a mechanism by which future project proponents can contribute to a funding mechanism to be directed to the development of City Parks. The fair share for future AGSP Projects, except where the Cities and/or IVDA establish a different funding schedule, shall be that for every 10,000 SF of development associated with the AGSP, the project shall contribute 0.11% of the funds necessary to develop or otherwise enhance existing 25.5 acres of parkland or otherwise fairly contribute to development of parks as defined by the City of San Bernardino, City of Highland, and the IVDA.*

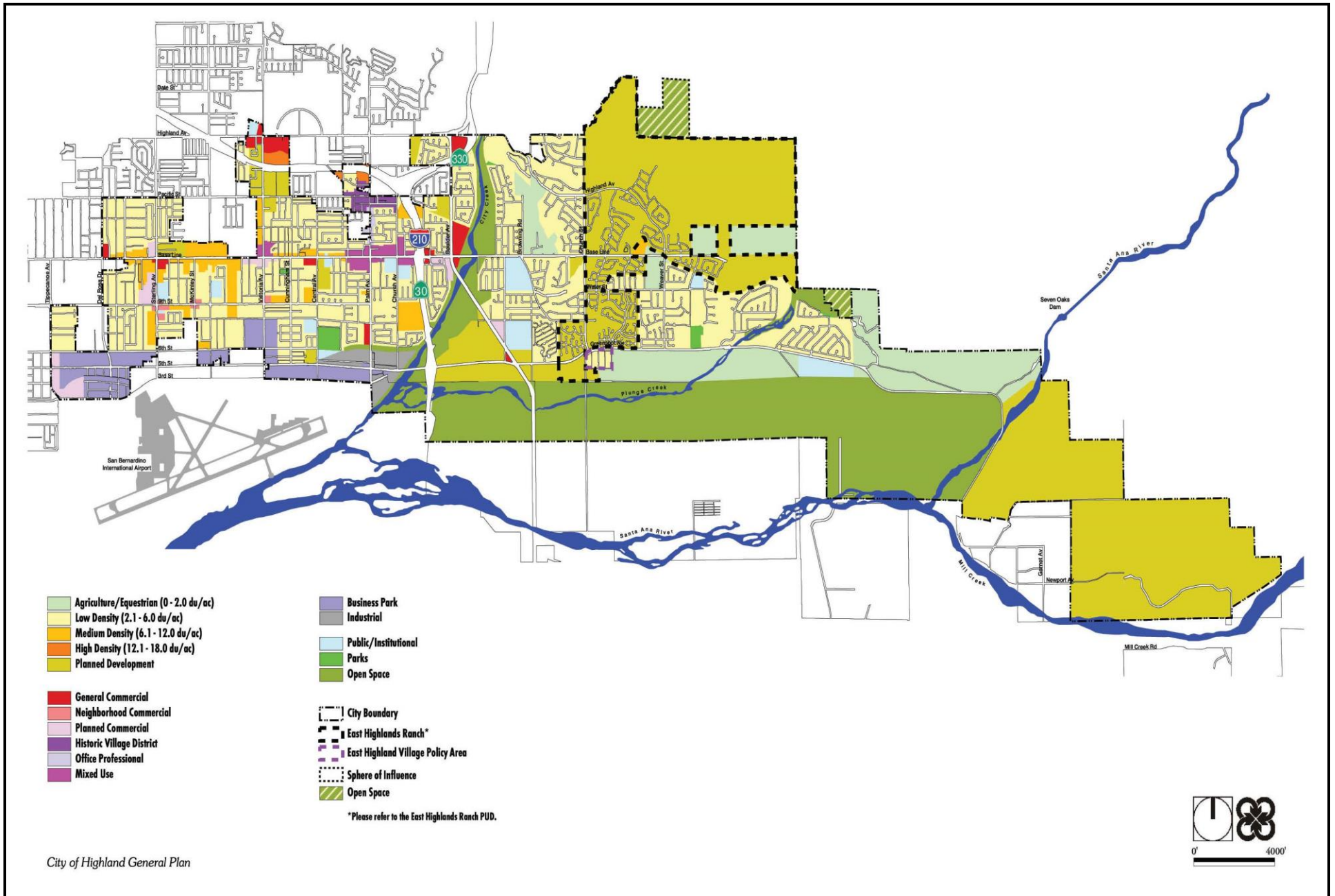
4.12.8 Cumulative Impacts

Development of the proposed project will result in substantial change of the land use on the vacant sites, but the changes are generally consistent with the land use and planning designations of the existing General Plans which establish the cumulative land use framework for the cities of Highland and San Bernardino. Approval of the proposed project will cause an intensification of development greater than that which presently occurs within the AGSP project area, but not generally greater than that which has been identified for development in the existing General Plans. The proposed project design includes buffers around boundary portions of the project area which abut adjacent lower intensity uses. A total of three mitigation measures will be implemented to offset potentially significant adverse impacts on land uses. The proposed project would contribute to implementation of the General Plan vision for the project area. No significant adverse impacts related to land use and planning resources and issues have been identified, and no cumulatively considerable and unavoidable impact is forecast to occur if the proposed project is implemented as proposed in the AGSP with area-wide mitigation measures.

4.12.9 Significant and Unavoidable Impacts

As determined above, no significant and unavoidable impacts relating to land use and planning will occur as a result of the proposed project.

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SOURCE: City of Highland General Plan

FIGURE 4.12-1

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General Plan Land Use

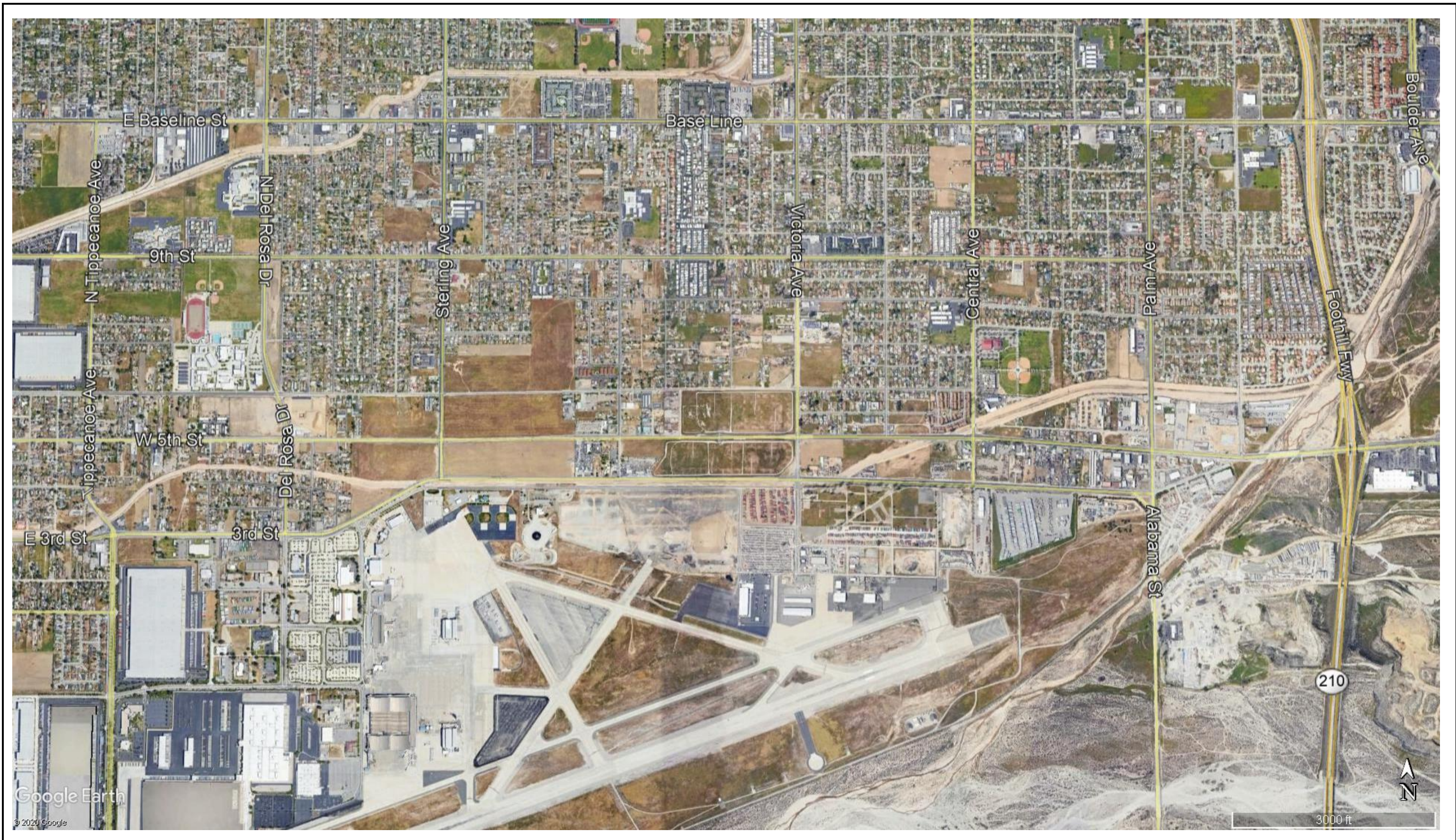
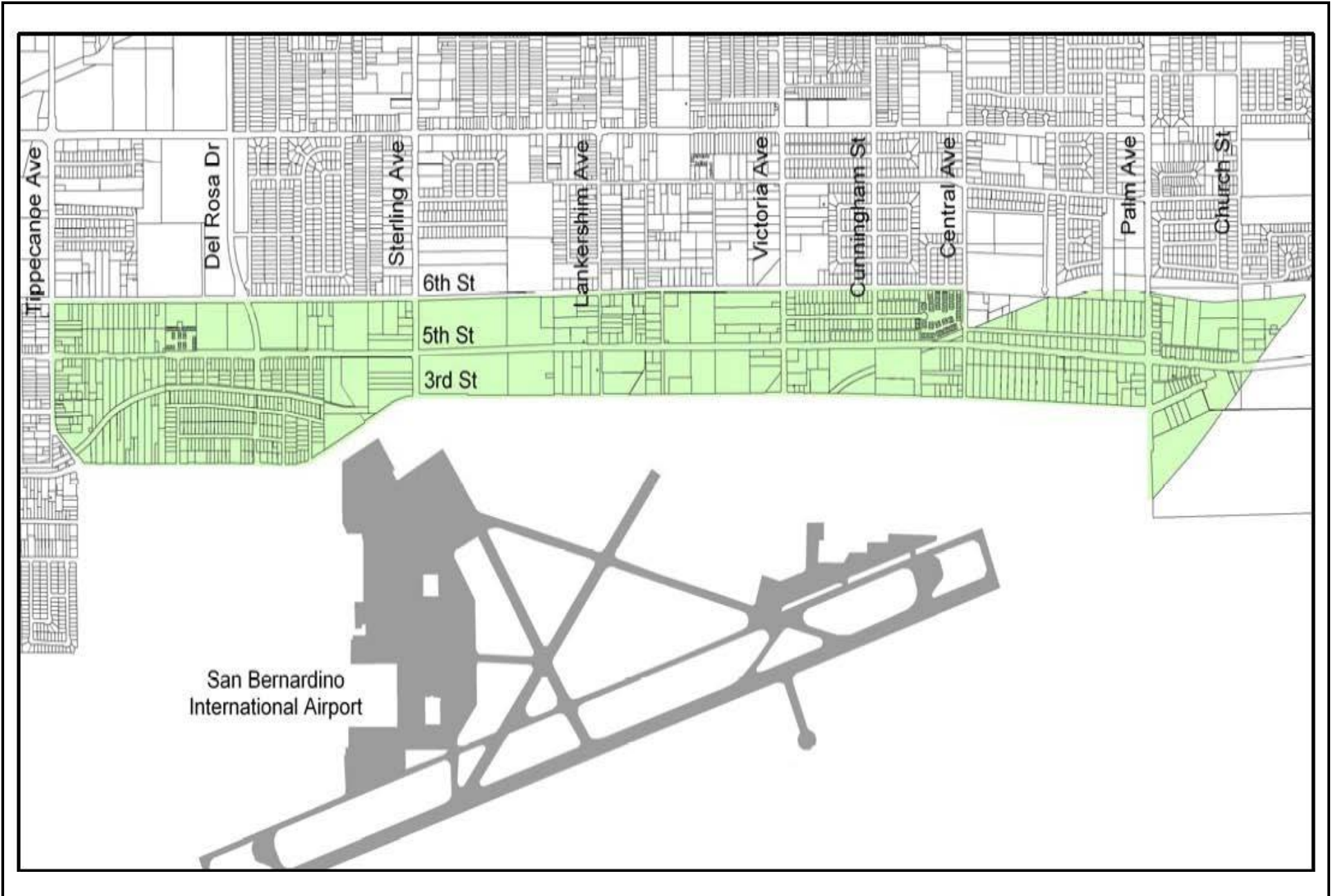
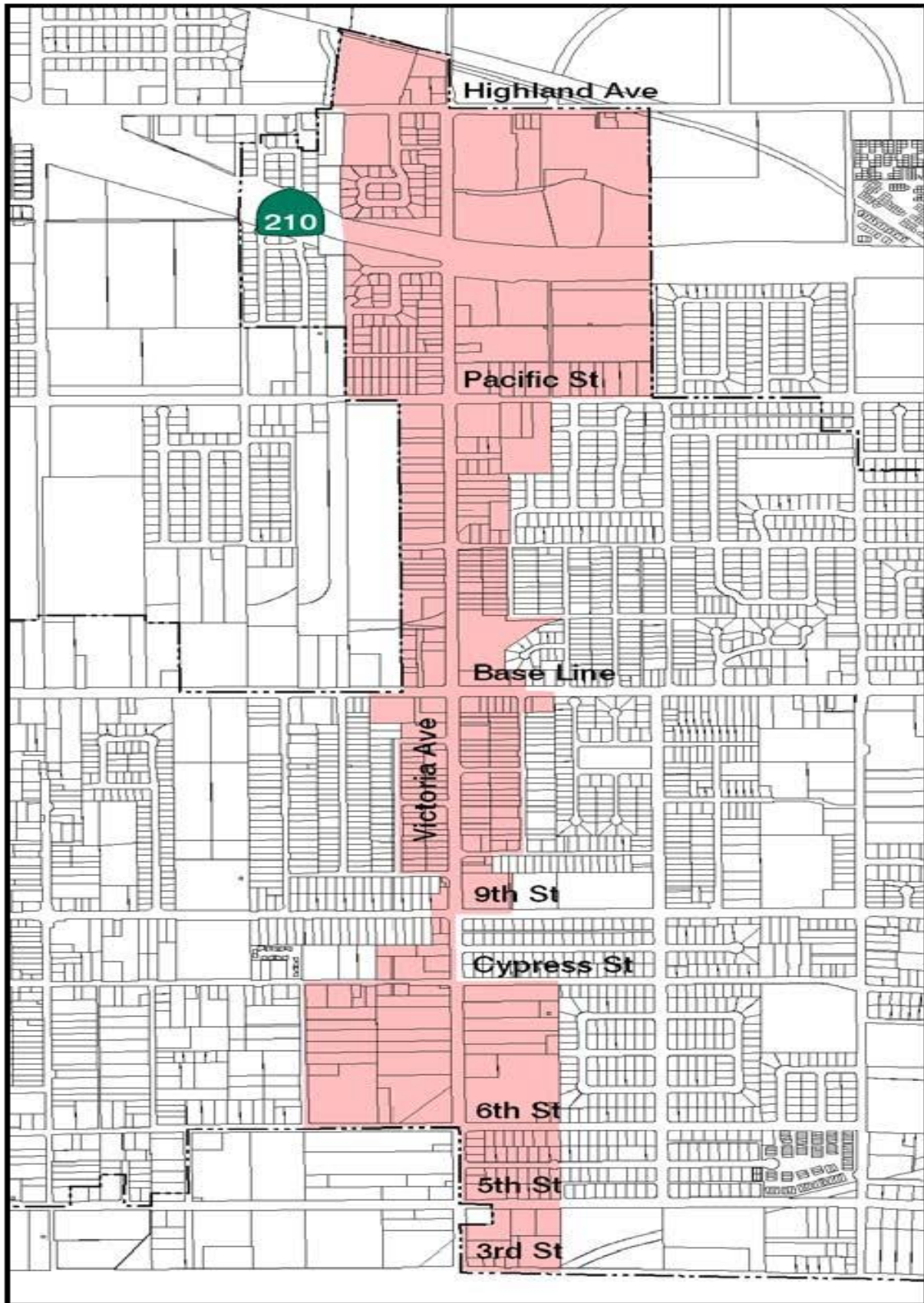


FIGURE 4.12-2



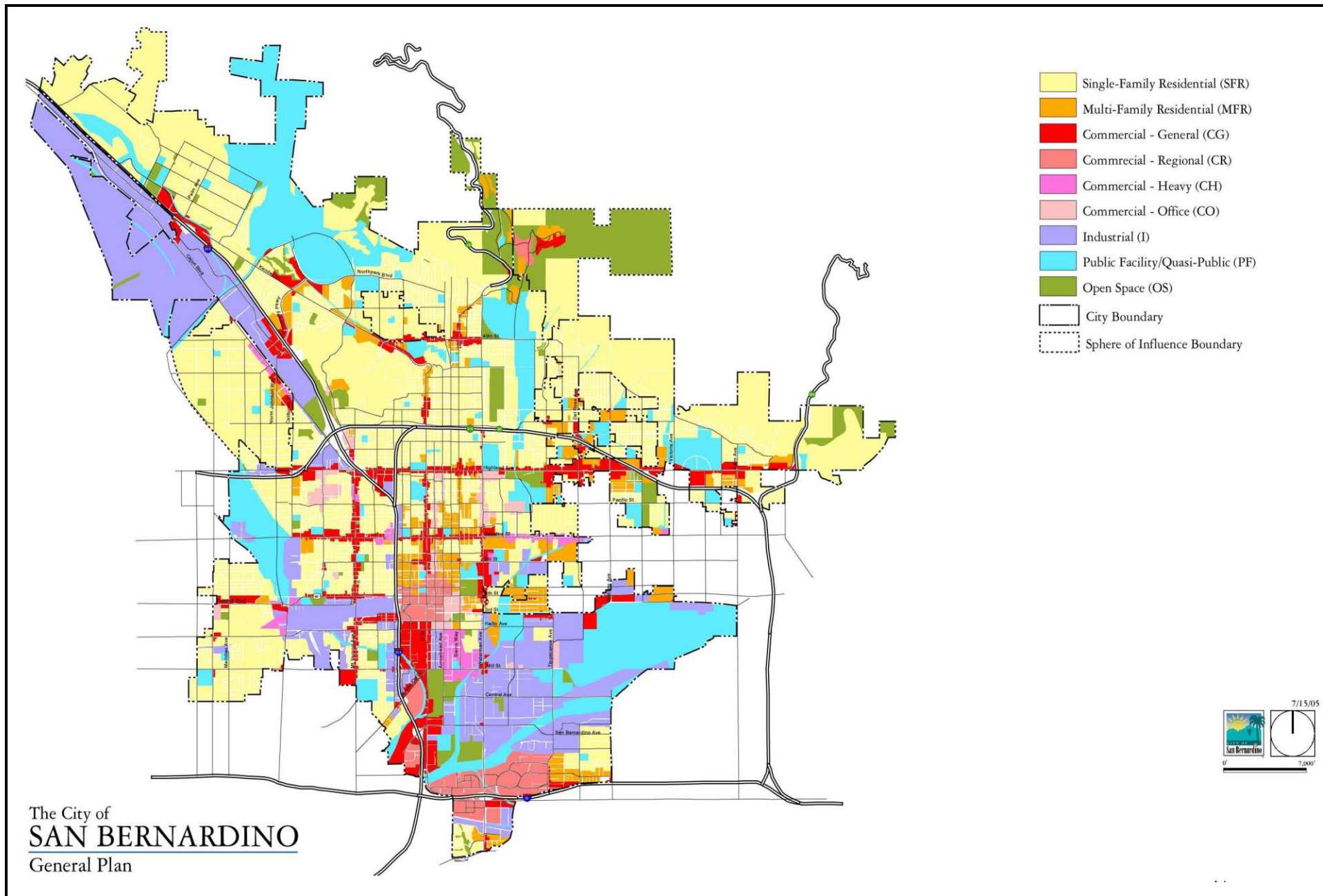
SOURCE: City of Highland General Plan

FIGURE 4.12-3



SOURCE: City of Highland General Plan

FIGURE 4.12-4

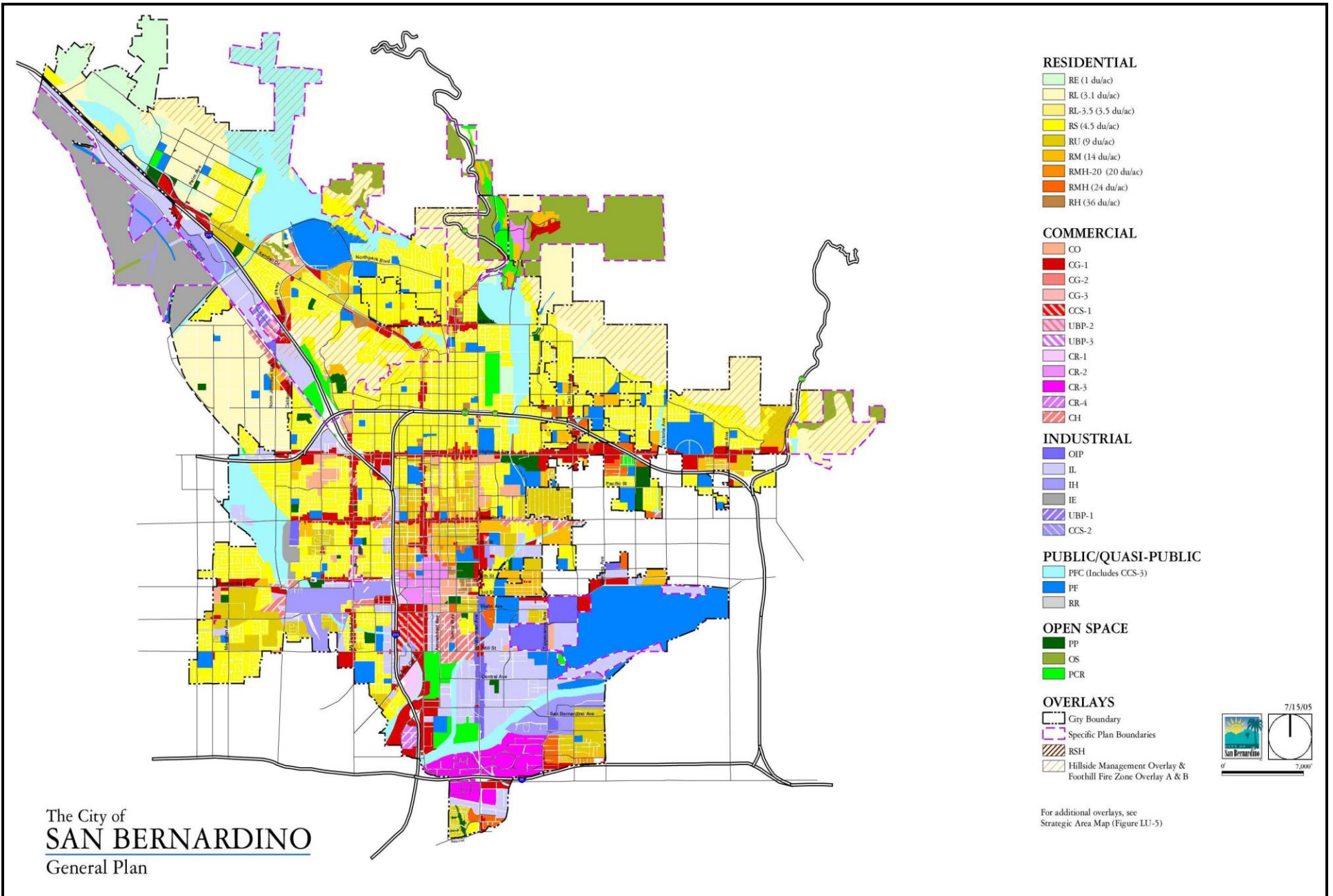


SOURCE: City of San Bernardino General Plan

FIGURE 4.12-5

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Foundation Component Plan



SOURCE: City of San Bernardino General Plan

FIGURE 4.12-6

4.13 MINERAL RESOURCES

4.13.1 Introduction

This Subchapter will evaluate the environmental impacts to the issue area of mineral resources from implementation of the Airport Gateway Specific Plan (AGSP). The following topics address whether the proposed Project would reduce or create a loss of important mineral resources within the potential impact area. The purpose of the mineral resources component of this Draft Environmental Impact Report (DEIR) is to provide an analysis of, and assess the potential for, mineral resources to be encountered within the AGSP Planning Area. In this way, the sensitivity for such resources to be encountered at a future specific project site can be incorporated into the planning process for future infrastructure and entitlement compliance considerations.

These issues will be discussed below as set in the following framework:

- 4.13.1 Introduction
- 4.13.2 Regulatory Setting
- 4.13.3 Environmental Setting
- 4.13.4 Thresholds of Significance
- 4.13.5 Methodology
- 4.13.6 Potential Impacts
- 4.13.7 Mitigation Measures
- 4.13.8 Cumulative Impacts
- 4.13.9 Unavoidable Adverse Impacts

References utilized for this section include:

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- Lilburn Corporation, March 2006. *Upper Santa Ana River Wash and Land Management and Habitat Conservation Plan, Mine Reclamation Plan for the Upper Santa Ana River Wash Aggregate Lands to be Operated by Robertson's Ready Mix, Plunge Creek Quarry, Silt Pond Quarry, East Quarry South*, prepared by Lilburn Corporation, March 2006.
- Department of Conservation, California Geological Survey, 2006. *Aggregate Availability in California*

No comments regarding mineral resources issues were raised at the public scoping meeting or as part of the Notice of Preparation.

4.13.2 Regulatory Setting

The mineral resources component of this DEIR is prepared to address implementation of the AGSP if and when it is approved in the future. The location of potential projects range between well-defined to relatively uncertain at this time, but the various components will occur in commercial, industrial, and residential areas in the communities within the planning area.

The impact assessment presented below focuses on physical changes to the landscape at a project site and any potential adverse impacts these changes may have on any mineral resource values that exist within the AGSP area. For purposes of the impacts, it is assumed that over the next 20 years the whole AGSP planning area will be implemented as proposed and described in the Project Description in this document.

This section discusses the potential impacts on mineral resources or resource values that may be associated with the implementation of the AGSP. However, much of the AGSP Plan Area has been zoned commercial, business park and industrial through the existing General Plans of the City of Highland and City of San Bernardino. The General Plans for each of the cities have already evaluated the potential loss of mineral resources in the Plan area through previous environmental studies associated with the adoption of the General Plans.

State

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act ("SMARA") of 1975 (Public Resources Code, Division 2, Chapter 9, Section 2710 et seq.) mandated the classification of mineral lands throughout the state to help identify and protect mineral resources in areas subject to urban expansion or other irreversible land uses that would preclude mineral extraction. Since 1975, the State Mining and Geology Board ("SMGB") has mapped areas in California that contain regionally significant mineral resources. Deposits of construction aggregate resources (sand, gravel, or crushed stone) were the initial commodity targeted for classification by the SMGB because of their importance to the state and their proximity to urban development. Once areas are mapped, the SMGB is required to designate for future use those areas that contain aggregate deposits that are of prime importance to meeting the region's future need for construction quality aggregates to support development.

Local

City of Highland General Plan

The following General Plan goals and policies addressing mineral resources are applicable to the project:

Open Space and Conservation Element: Goal 5.9

Manage mineral resources and extraction policies for short- and long-term safety, economic and land use compatibility considerations.

Open Space and Conservation Element: Policy 1

Identify any significant mineral resources within the City and, as feasible, protect them from encroachment by residential or other incompatible development, for future use.

Open Space and Conservation Element: Policy 2

Adopt policies and procedures for mining and processing of mineral resources.

Open Space and Conservation Element: Policy 3

Develop criteria for location and operation of mineral processing to minimize adverse impacts to the environment, watersheds, wildlife, aesthetic resources, public health and safety, and adjacent land uses.

Open Space and Conservation Element: Policy 4

Establish and implement Mining Reclamation Plans for any proposed mining operations in compliance with existing local, state and federal policies and statutes. Review land development proposals near resource areas or mining operations for land use compatibility.

Open Space and Conservation Element: Policy 5

Require that mining plans include, but not be limited to the following:

- Effects on terrain, natural and man-made slopes, permeability of soil, groundwater quality;
- Protection of water quality through erosion, runoff and
- sedimentation control;
- Protection of wildlife;

- Control of noise, dust, vibration, smoke, odors and lighting;
- Plans for rehabilitation and reclamation of lands; and
- Proposed timing of extraction and reclamation activities
- Offsite routes of travel.

Open Space and Conservation Element: Policy 6

Investigate the adoption of a reclamation fee program designed to mitigate remaining scars from previous quarry operations.

Open Space and Conservation Element: Policy 7

Pursue and implement a joint-powers agreement with adjacent cities and involved agencies for the management of natural resources located in the Santa Ana River Wash.

Open Space and Conservation Element: Policy 8

Permit non-mining uses within the designated Open Space District only if a finding is made that no significant impacts on future regional mineral resources will result from project approval.

City General Plan Figure 5-3, Mineral Resource Zones, identifies the City of Highland's mineral resources. This map is reproduced in this document as Figure 4.13-1.

City of San Bernardino General Plan

The following General Plan goals and policies addressing mineral resources are applicable to the project:

Natural Resources and Conservation Element: Goal 12.4

Properly manage designated areas for mineral extraction to meet the needs of the area.

Natural Resources and Conservation Element: Policy 12.4.1

Continue to document current extraction sites, including sand and gravel quarries, including the status and duration of existing permits and approvals.

Natural Resources and Conservation Element: Policy 12.4.2

Impose conditions and enforce mitigation measures on mining operations to reduce dust, noise, and safety hazards associated with removal of construction aggregate and minimize impacts on adjacent properties and environmental resources.

Natural Resources and Conservation Element: Policy 12.4.3

Determine and designate approved access routes to and from mineral resource sectors to minimize the impacts to vehicular circulation on City streets.

Natural Resources and Conservation Element: Policy 12.4.4

Require that any applications to permit uses other than mineral extraction or the interim uses defined in areas designated IE, Industrial Extractive, include findings to be prepared by the project proponent outlining the reasons why mining is not a feasible use and how the deletion of the area as a potential mineral resource supply impacts the regional supply of aggregate resources.

City General Plan Figure NRC-3, Mineral Resource Zones, identifies the City of San Bernardino's mineral resources. This map is reproduced in this document as Figure 4.13-2.

4.13.3 Environmental Setting: Mineral Resources

The earth materials underlying the project site are primarily comprised of topsoil, Quaternary very old alluvium, and bedrock. There has been no historic effort to mine any material within the ASGP Area. A field review determined that there are no active or historic mine sites in the immediate vicinity of the Plan Area. However, the City of Highland has indicated that the AGSP southern boundary between 3rd and 5th Streets east of Palm is the south side of these roadways

to ensure that the AGSP does not extend or encroach on any existing mining operations/activities south of these roads.

Both the City of Highland and the City of San Bernardino General Plan Mineral Resource Zones maps (see Figures 4.13-1 and 4.13-2) identify the aggregate mineral resource zones (MRZs) as mapped by the California Geological Survey in 2008. These resources have been mapped using the California Mineral Land Classification System, which includes the following Mineral Resource Zones (MRZs):

- MRZ-1: Areas where the available geologic information indicates no significant mineral deposits or a minimal likelihood of significant mineral deposits.
- MRZ-2a: Areas where the available geologic information indicates that there are significant mineral deposits.
- MRZ-2b: Areas where the available geologic information indicates that there is a likelihood of significant mineral deposits.
- MRZ-3a: Areas where the available geologic information indicates that mineral deposits are likely to exist; however, the significance of the deposit is undetermined.
- MRZ-3b: Areas where the available geologic information indicates that mineral deposits are likely to exist; however, the significance of the deposit is undetermined. This class denotes areas where presence of the mineral is inferred and/or not visible from the surface geology.
- MRZ-4: Areas where there is not enough information available to determine the presence or absence of mineral deposits.

The Plan Area is located within the MRZ-2 zone, which is defined as a Mineral Resource Zone “where the significance of mineral deposits cannot be determined from the available data.”

The closest known active mining activity (aggregate processing) to the Plan Area is immediately south of the intersection of 3rd Street and Palm Avenue and approximately one mile to the east and south (aggregate mining activity) within the Upper Santa Ana River wash and Plunge Creek, which has been an ongoing activity for nearly 80 years. The wash area is mined by Robertson’s Ready Mix (RRM) and Cemex Construction Materials L.P (CEMEX). Based on the available data, the AGSP Area does not support any mineral resource values and the current land use designations for commercial, business park and industrial within the cities would support mineral extraction, processing and sales activities.

More than half of the City of Highland is underlain by MRZ-2 rated mineral resources, with most of the remaining categorized as MRZ-3. Most of the MRZ zones exist in areas that have been developed for sand, gravel and aggregate mining activities that have been in operation for decades. According to the City of Highland, there are approximately 4,439 acres that have not been developed for mining activities as of the date of the City of Highland’s General Plan.

The Department of Conservation estimates that in the next 50 years, California will need approximately 13.5 billion tons of aggregate, and of that, approximately 1.074 billion tons would be needed in the San Bernardino area. This figure does not account for accelerated construction programs as a result of major bond initiatives, or from reconstruction following a major, damaging earthquake. The Department of Conservation estimated that the areas with the greatest projected future need for aggregate are the South San Francisco Bay, San Gabriel Valley, Temescal Valley-Orange County, Western San Diego County and San Bernardino. Each is expected to require more than a billion tons of aggregate by the end of 2055. Aggregate study areas that have small

demands generally are located in less populated areas. These include the Sierra Nevada counties of Placer, Nevada, and El Dorado, and Merced and Tulare counties in the San Joaquin Valley.

Of the total statewide demand, the Department of Conservation estimated that 24 percent would be generated from mines permitted in the San Bernardino area.

4.13.4 Thresholds of Significance

The California Environmental Quality Act (CEQA) CEQA Guidelines, Appendix G, a project would normally have a significant effect on the environment if the project would:

- MIN-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.
- MIN-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.

4.13.5 Methodology

The analysis herein is based upon a review of maps generated by the cities of Highland and San Bernardino depicting the location and quality of known mineral resources within their respective cities, as well as a field review of the project area.

4.13.6 Potential Impacts

MIN-1 Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The proposed project will convert lands that are vacant, residential and small commercial and industrial operations to a more modern, intensely developed urban condition. Based on a review of available data and a field review of the project site and surrounding area, there are no known mineral resource values in the general area that would justify retaining mineral mining, processing or sales activities. The planning area is not identified as an area where there are any known important mineral resource values. Therefore, there is no potential impact that would result in a loss of availability of a mineral by converting a site to a higher intensity urban use.

The proposed project will utilize significant amounts of concrete over the life of the Project because some of the buildings to be constructed in the Plan Area are anticipated to be warehouses, concrete tilt-up structures. The potential amount of concrete utilized to construct the various project facilities cannot be estimated at this time. It is anticipated that the need for aggregate resources to construct future specific projects will occur over 10 to 20 years and not all at the same time. Permitted aggregate resources exist within the immediate vicinity of the Plan Area (within one mile of the AGSP area) that can serve the various future facility construction activities on a local scale, thereby reducing the need to import aggregate material over long distance. The fact that aggregate will be used over 10 to 20 years will not strain or result in loss of a valuable mineral resource to residents of the state. According to the cities General Plans, there is a less than significant impact to the overall availability of the aggregate in the area.

Mitigation Measures: None Required

Level of Significance: Less Than Significant

MIN-2 Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Neither the City of Highland or the City of San Bernardino General Plans designate the Plan Area as a locally-important mineral resource recovery site. Therefore, the development of the Plan Area, which is consistent with the intent of the land use designations within both cities, has no potential to result in the loss of a locally-important mineral resource recovery site.

Mitigation Measures: None Required

Level of Significance: No Impact

4.13.7 Mitigation Measures

No mitigation is required to address potential mineral resource impacts of the proposed project.

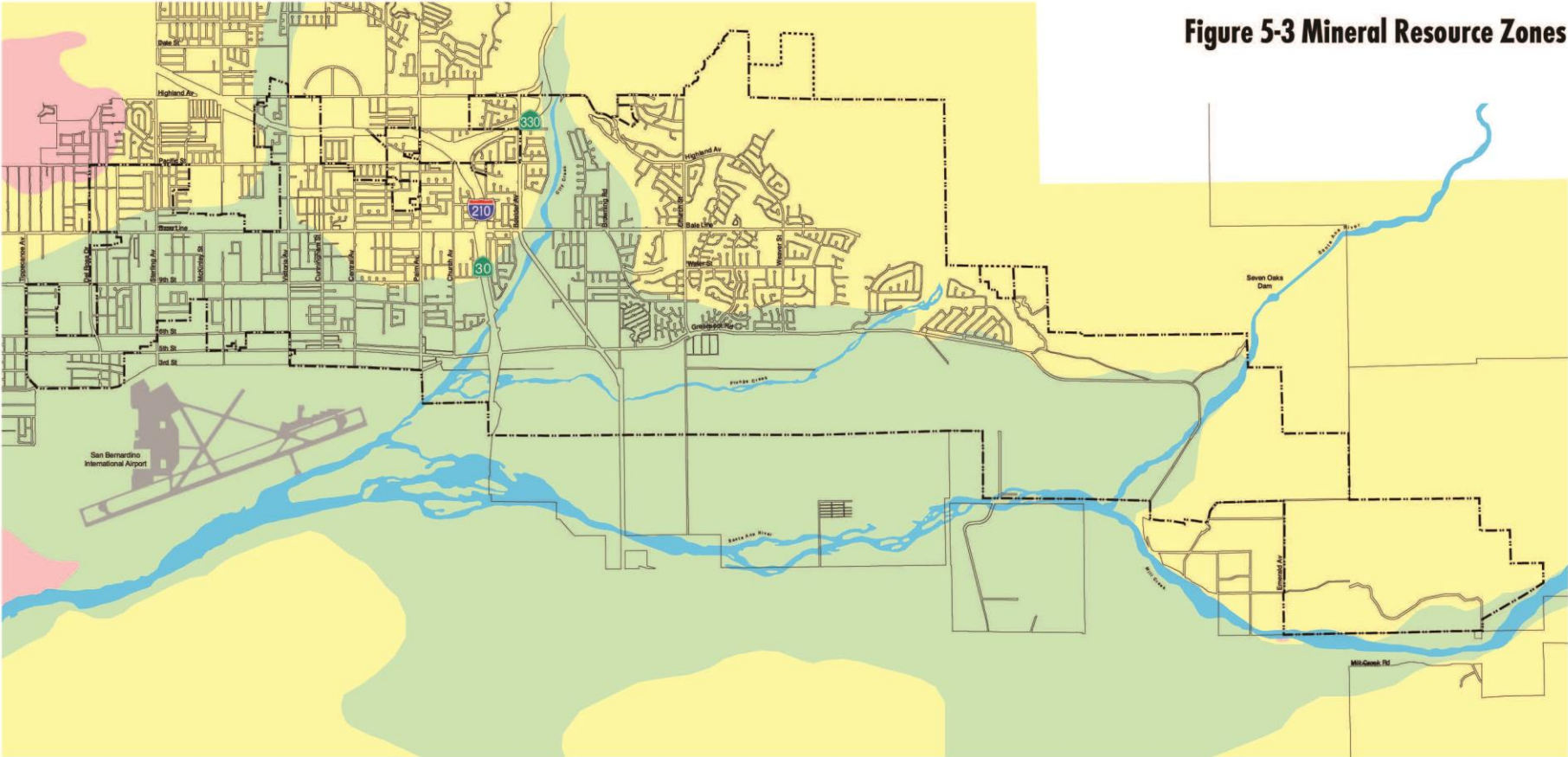
4.13.8 Cumulative Impacts

The Plan Area does not contain any existing mineral development nor any identified potential for mineral resource development. Development of the proposed project will not cause any adverse impacts to mineral resources or values. As a result, the proposed project has no potential to contribute to any cumulative loss of mineral resources or values. The project will have no cumulative adverse impact to mineral resources.

4.13.9 Unavoidable Adverse Impacts

As determined in the preceding evaluation, no significant and unavoidable impacts to mineral resources will occur as a result of the proposed project.

Figure 5-3 Mineral Resource Zones



- MRZ-1
- MRZ-2
- MRZ-3

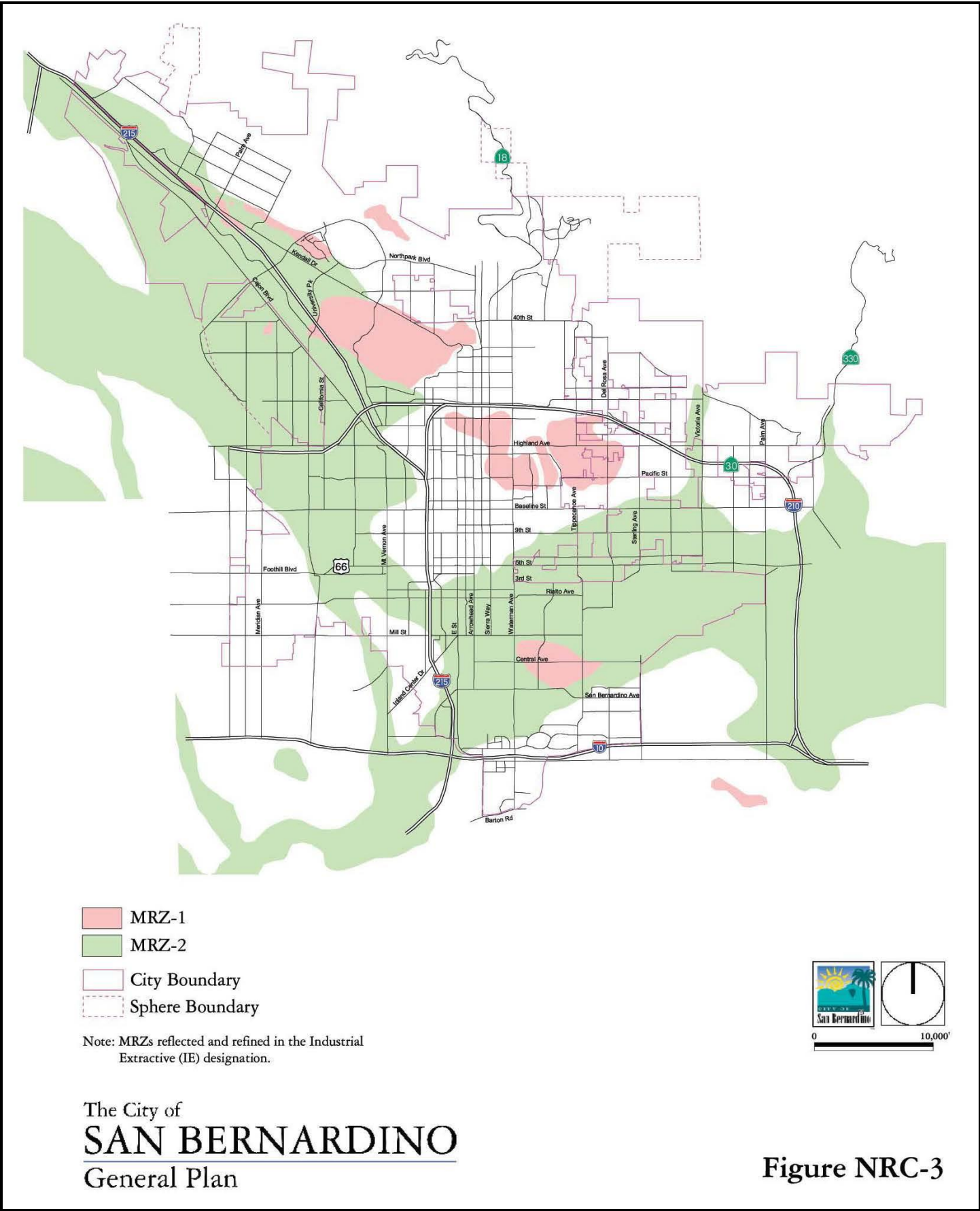
- City Boundary
- Sphere of Influence

City of Highland General Plan



SOURCE: City of Highland General Plan

FIGURE 4.13-1



SOURCE: City of San Bernardino General Plan

FIGURE 4.13-2

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 Environmental Consultants

City of San Bernardino Mineral Resources

4.14 NOISE

4.14.1 Introduction

This Subchapter will evaluate the environmental impacts to the issue area of noise from implementation of the proposed Airport Gateway Specific Plan (AGSP). This document is a full-scope Draft Program Environmental Impact Report (DPEIR) for the above-described project and all of the standard issues related to Noise identified in Appendix G of the CEQA Guidelines. As an existing developed area with a complete grid of existing roadways, the project area already experiences substantial background noise, primarily due to existing traffic. However, the project area includes older suburban areas that also generate typical residential neighborhood noise. There is also background noise from existing small commercial and industrial operational noise activities. And finally, the San Bernardino International Airport generates some background noise within the AGSP project area. Regardless, the traffic adjacent to existing uses constitutes the primary source of noise within the existing project area.

These issues pertaining to noise will be discussed below as set in the following framework:

- 4.14.1 Introduction
- 4.14.2 Regulatory Setting
- 4.14.3 Environmental Setting
- 4.14.4 Thresholds of Significance
- 4.14.5 Methodology
- 4.14.6 Potential Impacts
- 4.14.7 Mitigation Measures
- 4.14.8 Cumulative Impacts
- 4.14.9 Unavoidable Adverse Impacts

The following comments from the public regarding noise were received during the NOP comment period or at the Scoping Meeting:

Scoping Meeting Speaker #10 Jo: The speaker is looking for mitigation of noise, including noise mitigation should be considered for houses and schools that are adjacent to the project.

*Response: Subchapter 4.14 addresses the potential impacts on the existing noise environment from the proposed AGSP. Operationally, the proposed project would require the implementation of MM **NOI-1**, which would require a reduction in potential operational noise levels increases at the nearby noise-sensitive receiver locations through site design measures, sound barrier walls or earth berms, operating equipment outdoors that is fitted with well-maintained mufflers, maintaining the quality of pavement conditions within the property, and imposing restrictions on truck noise. Construction noise abatement measures include MMs **NOI-2** through **NOI-9**, which would ensure that the AGSP would result in a less than significant construction noise impact. The proposed project would result in a significant and unavoidable off-site traffic noise impact because mitigation to reduce such noise would be required to be implemented on private property, and unless the property owners agree to enable such mitigations to be implemented, this impact would be significant. The IVDA and Cities would aim to work with private property owners to enable off-site traffic noise to be implemented, but cannot force any private property owner to accept such mitigations to be implemented.*

The following reference documents were used in preparing this section of the DPEIR.

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- Urban Crossroads, December 3, 2020. *Airport Gateway Specific Plan Noise Impact Analysis. (NIA)*

4.14.2 Regulatory Setting

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally establish noise standards for mobile sources, such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

4.14.2.1 State of California Noise Requirements

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 local jurisdiction adopt a General Plan that includes a Noise Element which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research (OPR). The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels to the extent feasible. In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

4.14.2.2 State of California Green Building Code

The State of California's Green Building Standards Code (CALGreen) contains mandatory measures for non-residential building construction in Section 5.507 on Environmental Comfort. These noise standards are applied to new construction in California for controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when non-residential structures are developed in areas where the exterior noise levels exceed 65 dBA Community Noise Equivalent Level (CNEL) noise level, such as within excessive noise of an airport, freeway, railroad, and other areas where noise contours are not readily available. If the development falls within an airport or freeway 65 dBA CNEL noise contour, the combined sound transmission class (STC) rating of the wall and roof-ceiling assemblies shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level of 50 dBA Leq in occupied areas during any hour of operation.

4.14.2.3 City of San Bernardino General Plan Noise Element

The City of San Bernardino General Plan Noise Element identifies several policies to minimize the impacts of excessive noise levels throughout the community. The Noise Element provides policy guidance which addresses the generation, mitigation, avoidance, and the control of

excessive noise. To protect the City of San Bernardino residents from excessive noise levels, the Noise Element contains the following three goals:

Noise Element: Goal 14.1

Ensure that residents are protected from excessive noise through careful land planning.

Noise Element: Goal 14.2

Encourage the reduction of noise from transportation-related noise sources, such as motor vehicles, aircraft operations, and railroad operations.

Noise Element: Goal 14.3

Protect residents from the negative effects of “spill over” or nuisance noise.

The noise policies specified in the Noise Element provide the guidelines necessary to satisfy these goals. To ensure that residents are not exposed to excessive noise levels (Goal 14.1), Policies 14.1.1 to 14.1.4 indicate that sensitive land uses such as housing, health care facilities, schools, libraries, and religious facilities should not experience exterior noise levels greater than 65 dBA Day-Night Noise Level (LDN) for exterior areas and 45 dBA LDN for interior areas. LDN is similar to the CNEL noise measurement methodology. As discussed in Section 2.2 the more conservative CNEL descriptor is used in this analysis, and therefore, the exterior noise level criteria of 65 dBA CNEL and interior noise level criteria of 45 dBA CNEL shall apply to sensitive land uses. City Noise Element Policies 14.2.1 to 14.2.19 outline the transportation-related guidelines and mitigation strategies the City uses to satisfy Goal 14.2. To protect residents from sources of operational and construction noise (Goal 14.3), the Noise Element includes Policies 14.3.1 to 14.3.8 to adopt a Noise Ordinance and ensure noise issues between land uses are reduced.

Land Use Compatibility

The noise criteria identified in the City of San Bernardino Noise Element (Figure N-1) are guidelines to evaluate the land use compatibility of transportation-related noise sources. The compatibility criteria, shown on Figure 4.14-1, provides the City with a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels. The Land Use Compatibility for Community Noise Exposure guidelines indicate that industrial land uses, such as the Project, are considered normally acceptable with noise levels below 75 dBA CNEL and conditionally acceptable with noise levels of less than 80 dBA CNEL.

Transportation Noise Standards

To encourage the reduction of noise from transportation-related noise sources such as motor vehicles, aircraft operations and railroad movements (Goal 14.2), Table N-3 of the City of San Bernardino General Plan Noise Element, shown on Figure 4.14-2, identifies a maximum allowable exterior noise level of 65 dBA CNEL and an interior noise level limit of 45 dBA CNEL for new residential development. While the City specifically identifies an exterior noise level limit for noise-sensitive residential land uses such as hotels, hospitals, schools, and parks, the City of San Bernardino does not maintain exterior noise standards for non-noise sensitive land uses such as manufacturing, warehousing, wholesale and utilities (generally considered to be industrial uses).

4.14.2.4 City of Highland General Plan Noise Element

The City of Highland General Plan Noise Element (Chapter 7 of the General Plan) identifies several policies to minimize the impacts of excessive noise levels throughout the community. The Noise Element provides policy guidance which addresses the generation, mitigation, avoidance, and the control of excessive noise. To protect the City of Highland residents from excessive noise levels, the Noise Element contains the following three goals:

Noise Element: Goal 7.1

Protect sensitive land uses and the citizens of Highland from annoying and excessive noise through diligent planning and regulation.

Noise Element: Goal 7.2

Encourage the reduction of noise from transportation-related noise sources such as automobile and truck traffic.

Noise Element: Goal 7.3

Protect residents from the effects of “spill over” or nuisance noise.

The noise policies specified in the Noise Element provide the guidelines necessary to satisfy each of these goals. To ensure that residents are not exposed to excessive noise levels (Goal 7.1), Policies 7.1.1 to 7.1.7 indicate that sensitive land uses such as housing, health care facilities, schools, libraries, and religious facilities should not experience exterior noise levels greater than 65 dBA CNEL for exterior areas and 45 dBA CNEL for interior areas. City Noise Element Policies 7.2.1 to 7.2.5 outline the transportation-related guidelines and mitigation strategies the City uses to satisfy Goal 7.2. To protect residents from sources of operational and construction noise (Goal 7.3), the Noise Element includes Policies 7.3.1 to 7.3.5 to adopt a Noise Ordinance and ensure noise issues between land uses are reduced.

The City of Highland Municipal Code sets forth the City Standards, guidelines and procedures concerning the regulation of noise. The City categorizes land uses into designated noise zones assign appropriate interior and exterior noise standards. The appropriate interior and exterior noise standards are identified on Tables 7.1 and 7.2, of the General Plan. These tables are provided below as Table 4.14-1 and 4.14-2, interior and exterior noise standards, respectively.

**Table 4.14-1
 CITY OF HIGHLAND INTERIOR NOISE STANDARDS**

Type of Land Use	CNEL (dBA)
Residential	45
Educational/churches, other institutional uses	45
General offices	50
Retail stores, restaurants	55
Manufacturing, warehousing	65
Agricultural	55
Sand and gravel operations	75

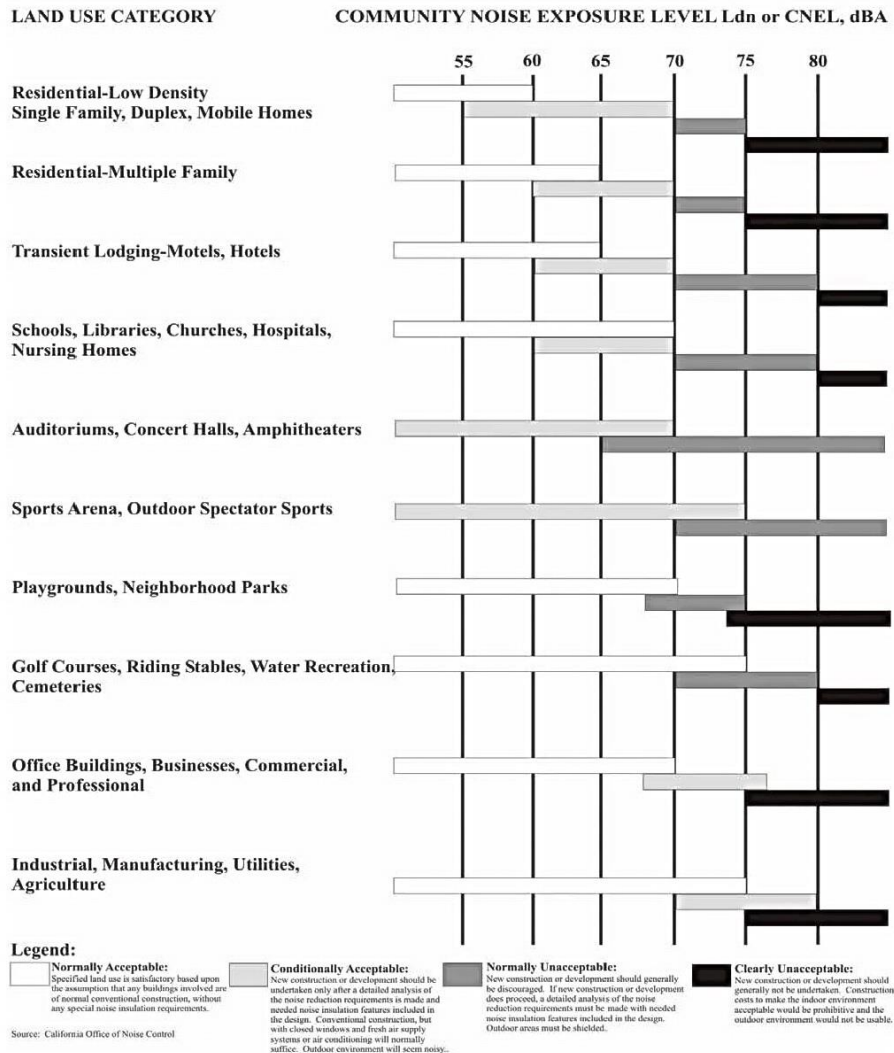
Source: Chapter 8.50, Noise Control, City of Highland Municipal Code

Table 4.14-2
CITY OF HIGHLAND EXTERIOR NOISE STANDARDS

Type of Land Use	Time Interval	CNEL (dBA)
Residential	10 PM – 7 AM	55
	7 AM – 10 PM	60
Agricultural/Equestrian	10 PM – 7 AM	60
	7 AM – 10 PM	65
Commercial	10 PM – 7 AM	65
	7 AM – 10 PM	70
Manufacturing or warehousing	Any Time	75
Open Space	Any Time	75

Source: Chapter 8.50, Noise Control, City of Highland Municipal Code

FIGURE 4.14-1
LAND USE COMPATIBILITY FOR COMMUNITY NOISE EXPOSURE



**FIGURE 4.14-2
 INTERIOR AND EXTERIOR NOISE STANDARDS**

<i>Land Use</i>		<i>CNEL (dBA)</i>	
<i>Categories</i>	<i>Uses</i>	<i>Interior</i> ¹	<i>Exterior</i> ²
Residential	Single and multi-family, duplex	45 ³	65
	Mobile homes	----	65 ⁴
Commercial	Hotel, motel, transient housing	45	---
	Commercial retail, bank, restaurant	55	---
	Office building, research and development, professional offices	50	---
	Amphitheater, concert hall, auditorium, movie theater	45	---
	Gymnasium (Multipurpose)	50	---
	Sports Club	55	---
	Manufacturing, warehousing, wholesale, utilities	65	---
	Movie Theaters	45	---
Institutional/ Public	Hospital, school classrooms/playgrounds	45	65
	Church, library	45	---
Open Space	Parks	---	65

¹ Indoor environment excluding: bathrooms, kitchens, toilets, closets, and corridors

² Outdoor environment limited to:

- Private yard of single-family dwellings
- Multi-family private patios or balconies accessed from within the dwelling (Balconies 6 feet deep or less are exempt)
- Mobile home parks
- Park picnic areas
- School playgrounds
- Hospital patios

³ Noise level requirement with closed windows, mechanical ventilation or other means of natural ventilation shall be provided as per Chapter 12, Section 1205 of the Uniform Building Code.

⁴ Exterior noise levels should be such that interior noise levels will not exceed 45 dBA CNEL.

4.14.3 Environmental Setting: Noise

4.14.3.1 Noise Terminology

Noise has been simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on human health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear.

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring noise intensity is the "decibel" scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice

as loud. The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA at approximately 100 feet, which can cause serious discomfort. Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

4.14.2.2 Noise Descriptors

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most used figure is the equivalent level (Leq). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period (typically one hour) and is commonly used to describe the “average” noise levels within the environment.

To describe the time-varying character of environmental noise, the statistical or percentile noise descriptors L50, L25, L8 and L2, are commonly used. The percentile noise descriptors are the noise levels equaled or exceeded during 50 percent, 25 percent, 8 percent and 2 percent of a stated time. Sound levels associated with the L2 and L8 typically describe transient or short-term events, while levels associated with the L50 describe the steady state (or median) noise conditions. The descriptor relies on the percentile noise levels to describe the stationary source noise level limits. While the L50 describes the noise levels occurring 50 percent of the time, the Leq accounts for the total energy (average) observed for the entire hour.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of 5 decibels to dBA Leq sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA Leq sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when sound appears louder. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The Cities of San Bernardino and Highland rely on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources.

4.14.3.3 Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The manner in which noise reduces with distance depends on the following factors.

Geometric Spreading

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as

cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.

Ground Absorption

The propagation path of noise from a highway to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source.

Atmospheric Effects

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects.

Shielding

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an “out of sight, out of mind” effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby resident. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The Federal Highway Administration (FHWA) does not consider the planting of vegetation to be a noise abatement measure.

Reflection

Field studies conducted by the FHWA have shown that the reflection from barriers and buildings does not substantially increase noise levels. If all the noise striking a structure was reflected back to a given receiving point, the increase would be theoretically limited to 3 dBA. Further, not all the acoustical energy is reflected back to same point. Some of the energy would go over the structure, some is reflected to points other than the given receiving point, some is scattered by ground coverings (e.g., grass and other plants), and some is blocked by intervening structures and/or obstacles (e.g., the noise source itself). Additionally, some of the reflected energy is lost due to the longer path that the noise must travel. FHWA measurements made to quantify reflective increases in traffic noise have not shown an increase of greater than 1-2 dBA; an increase that is not perceptible to the average human ear.

4.14.3.4 Noise Control

Noise control is the process of obtaining an acceptable noise environment for an observation point or receiver by controlling the noise source, transmission path, receiver, or all three. This concept is known as the source-path-receiver concept. In general, noise control measures can be applied to these three elements.

4.14.3.5 Noise Barrier Attenuation

Effective noise barriers can reduce noise levels by up to 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receiver. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source.

4.14.3.6 Land Use Compatibility with Noise

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized.

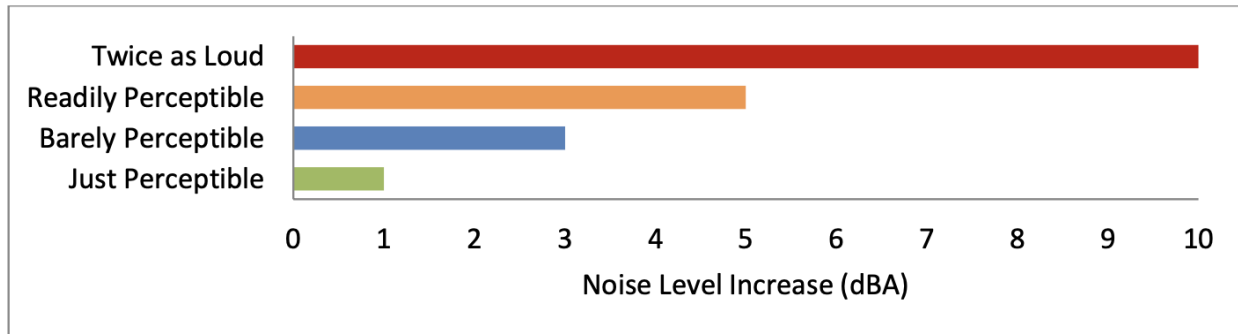
4.14.3.7 Community Response to Noise

Community responses to noise may range from registering a complaint by telephone or letter, to initiating court action, depending upon everyone's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance including:

- Fear associated with noise producing activities;
- Socio-economic status and educational level;
- Perception that those affected are being unfairly treated;
- Attitudes regarding the usefulness of the noise-producing activity;
- Belief that the noise source can be controlled.

Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Twenty-five percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. Surveys have shown that about ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown on Figure 4.14-3. A change of 3 dBA is considered barely perceptible, and changes of 5 dBA are considered readily perceptible.

FIGURE 4.14-3
NOISE LEVEL INCREASE PERCEPTION



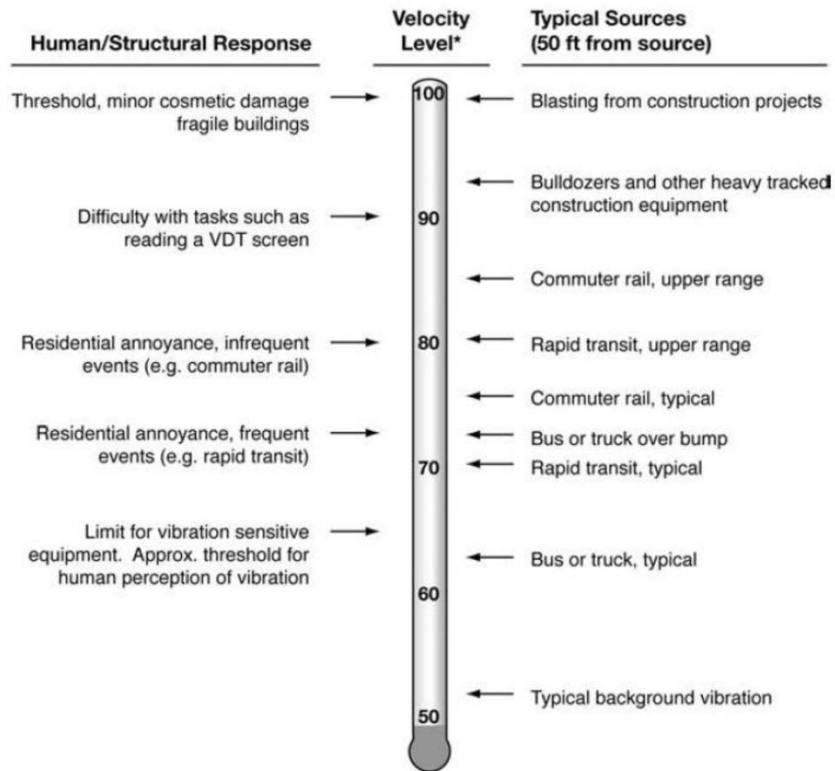
4.14.3.8 Vibration

Per the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual, vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. Decibel notation (VdB) serves to reduce the range of numbers used to describe human response to vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment and/or activities.

The background vibration-velocity level in residential areas is generally about 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Figure 4.14-4 illustrates common vibration sources and the human and structural response to ground-borne vibration.

**FIGURE 4.14-4
 VIBRATION LEVEL INCREASE PERCEPTION**



* RMS Vibration Velocity Level in VdB relative to 10⁻⁶ inches/second

4.14.3.9 Existing Noise Level Measurements

To assess the existing noise level environment, 24-hour noise level measurements were taken at eight locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Figure 4.14-5 provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Wednesday, September 9th, 2020. The noise information provided in the following text is abstracted from Airport Gateway Specific Plan Noise Impact Analysis (NIA) prepared by Urban Crossroads. A copy of this document is provided in Appendix 9 of Volume 2 of this Draft PEIR.

Measurement Procedure and Criteria

To describe the existing noise environment, the 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 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 meter 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 (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013.

Noise Measurement Locations

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.

Noise Measurement Results

The noise measurements presented below focus on the average or equivalent sound levels (Leq). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 4.14-3 identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location.

Table 4.14-3 provides the (energy average) noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix 5.2 provides summary worksheets of the noise levels for each hour as well as the minimum, maximum, L1, L2, L5, L8, L25, L50, L90, L95, and L99 percentile noise levels observed during the daytime and nighttime periods.

The background ambient noise levels in the Project study area are dominated by the transportation-related noise associated with surface streets. This includes the auto and heavy truck activities on study area roadway segments near the noise level measurement locations. The 24-hour existing noise level measurement results are shown on Figure 4.14-5.

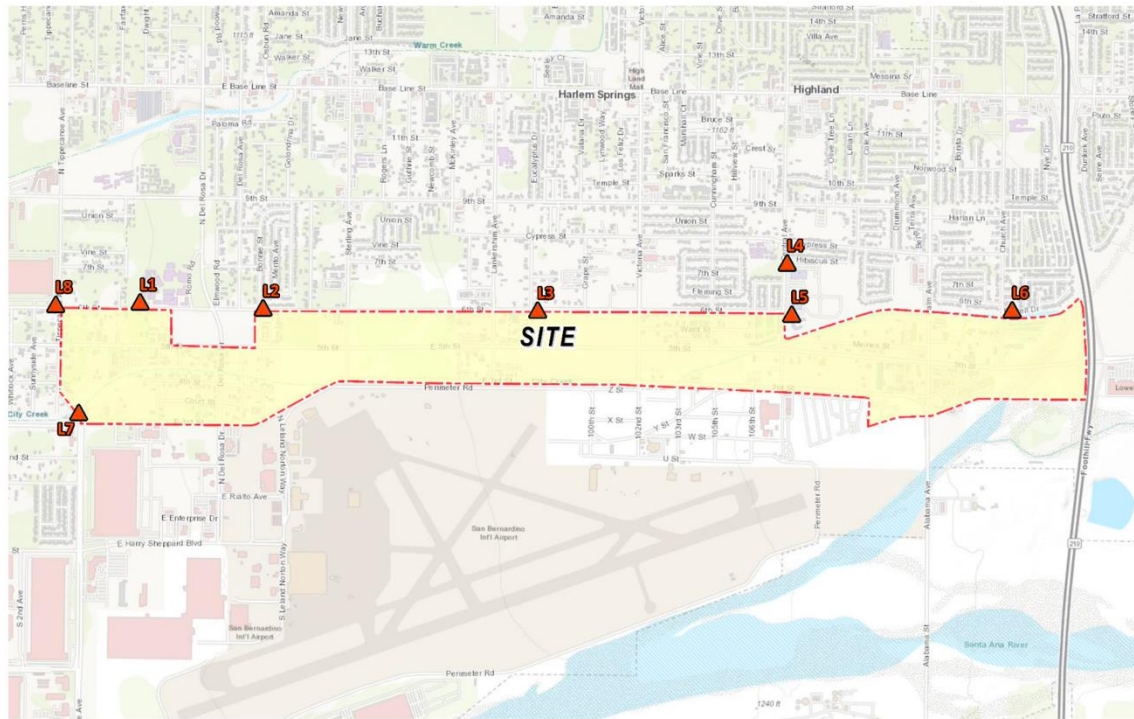
Table 4.14-3
24-HOUR AMBIENT NOISE LEVEL MEASUREMENTS

Location ¹	Description	Energy Average Noise Level (dBA L _{eq}) ²		CNEL
		Daytime	Nighttime	
L1	Located north of the Project site in Indian Springs High School at 650 N Del Rosa Drive.	57.7	54.9	62.3
L2	Located north of the Project site on 6th Street near existing single family residential home at 7891 Bonnie Street.	64.2	59.1	67.2
L3	Located north of the Project site on 6th Street near existing single-family residential home at 7904 Roberts Street.	60.5	57.2	64.7
L4	Located north of the Project site on Central Avenue near the Highland Family YMCA at 7793 Central Avenue.	61.4	58.6	66.1
L5	Located north of the Project site by the Highland Branch Library at 7863 Central Avenue.	51.9	48.4	56.0
L6	Located northeast of the Project site on Powell Drive near existing single-family residential home at 7885 Church Avenue.	58.5	57.1	63.9
L7	Located southwest of the Project site on Tippecanoe Avenue across from Trinity Christian Fellowship Church at 8174 Tippecanoe Avenue.	70.6	68.8	75.8
L8	Located northwest of the Project site on 6th Street and Tippecanoe Avenue.	64.6	61.6	68.8

¹ See Figure 4.14-5 for the noise level measurement locations.

² Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2. "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

FIGURE 4.14-5
NOISE MEASUREMENT LOCATIONS



LEGEND:
 N
 Measurement Locations

4.14.4 Thresholds of Significance

4.14.4.1 Operational Noise Standards

To describe the potential Project-related operational noise level contributions, this analysis presents the appropriate operational noise standards (Thresholds of Significance) for both the Cities of San Bernardino and Highland.

City of San Bernardino

To analyze noise impacts originating from a designated fixed location or private property area, such as the AGSP, operational source noise is typically evaluated against standards established under a City's Municipal Code. While the City of San Bernardino maintains several policies in the Municipal Code Noise Control Ordinance to control the negative effects of nuisance noise, it does not identify specific exterior noise level limits. However, the policies in the Municipal Code Development Code, Chapter 19.20, Property Development Standards contain the exterior and interior noise level standards for residential land uses. Therefore, the stationary noise sources such as loading dock activity, delivery van activity, roof-top air conditioning units, parking lot vehicle activity, and trash enclosure activity originating from a designated fixed location or private property such as AGSP Development Site, are evaluated against the policies adopted in the City's Development Code.

The Project operational noise impacts are governed by the City of San Bernardino Municipal Code, Section 8.54. Section 8.54.060 states when: such noises are an accompaniment and effect of a lawful business, commercial or industrial enterprise carried on in an area zoned for that purpose...these activities shall be exempt (Section 8.54.060(B)). However, due to the Project's close proximity to residential land uses, located north of the Development Site boundary, Development Code, Section 19.20.030.15(A), limits the operational stationary-source noise from Airport Gateway Specific Plan Project to an exterior noise level of 65 dBA Leq for residential land use. The City of San Bernardino Municipal Code noise standards are shown on Table 4.14-4 and included in Appendix 3.1.

City of Highland

The currently adopted City of Highland Municipal Code does not identify any quantifiable exterior noise level standards for non-transportation (stationary) noise sources. The 24-hour Community Noise Equivalent Levels (CNEL) outlined in Tables 7.1 and 7.2 in the City of Highland General Plan Noise Element do not reflect the currently adopted Municipal Code Noise Criteria. Therefore, this analysis relies on the City of San Bernardino Development Code noise standards to assess the noise impacts for receivers located within the City of Highland. The currently adopted City of Highland Municipal is included in Appendix 3.2 and the City of Highland General Plan Noise Element is included in Appendix 3.3.

**Table 4.14-4
 OPERATIONAL NOISE STANDARDS**

Jurisdiction	Land Use	Exterior Noise Level Standard (dBA L _{eq}) ¹
City of San Bernardino ¹	Residential	65
City of Highland	n/a	n/a
¹ Source: City of San Bernardino Municipal Code, Section 19.20.030.15(A) (Appendix 3.1 of the NIA, Urban Crossroads). "n/a" = The City of Highland Municipal Code does not identify quantifiable exterior noise level standards for non-transportation noise sources (stationary).		

4.14.4.2 Construction Noise Standards

To analyze noise impacts originating from the construction of a Project, noise from construction activities IS typically limited to the hours of operation established under a jurisdiction’s Municipal Code. For example, Section 8.54.070 the City of San Bernardino Municipal Code, provided in Appendix 3.1, indicates that construction activity is restricted to the hours within 7:00 a.m. and 8:00 p.m. However, neither the General Plan Noise Elements or Municipal Codes for the Cities of San Bernardino and Highland establish numeric maximum acceptable construction source noise levels at potentially affected receivers, which would allow for a quantified determination of what CEQA defines as a substantial temporary or permanent increase in ambient noise levels. Therefore, a numerical construction threshold based on Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual is used for analysis of daytime construction impacts, as discussed below.

According to the FTA, local noise ordinances are typically not very useful in evaluating construction noise. They usually relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the impact of a construction project. Project construction noise criteria should account for the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use. Due to the lack of standardized construction noise thresholds, the FTA provides guidelines that can be considered reasonable criteria for construction noise assessment. The FTA considers a daytime exterior construction noise level of 80 dBA L_{eq} as a reasonable threshold for noise sensitive residential land use. (7 p. 179)

4.14.4.3 Construction Vibration Standards

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 such as air compressors, light trucks, hydraulic loaders, etc., generates little or no ground vibration. To analyze vibration impacts originating from the operation and construction of the AGSP, vibration-generating activities are appropriately evaluated against standards established under a City’s Municipal Code, if such standards exist. However, the Cities of San Bernardino and Highland do not identify specific vibration level limits and instead this analysis relies on the Caltrans Transportation and Construction Vibration Guidance Manual, (13 p. 38) Tables 19 and 20, vibration damage and annoyance criteria are used in this noise study to assess potential temporary construction-related impacts at adjacent receiver locations.

Building Damage

While ground vibrations from construction activities do not often reach the levels that can damage structures, fragile buildings must receive special consideration. The construction vibration damage potential criteria include consideration of the building conditions. (3 p. 182) Table 4.14-5 describes the maximum acceptable transient and continuous vibration building damage potential levels by structure type and condition.

**Table 4.14-5
 BUILDING DAMAGE VIBRATION CRITERIA**

Structure and Condition	Maximum Transient Vibration Levels PPV (in/sec)	Maximum Continuous Vibration Levels PPV (in/sec)
Extremely fragile historic buildings	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Most of the buildings near the Project site can be described as new residential structures with a maximum acceptable transient building damage vibration threshold of 1.0 PPV (in/sec).

Human Annoyance

For sensitive residential receiver locations, potential annoyance due to construction-related vibration levels is evaluated based on the Caltrans annoyance potential criteria. Table 4.14-6 describes the maximum acceptable criteria used to describe the transient and continuous sources of vibration. To describe the human annoyance due to construction vibration levels, this analysis relies on the barely perceptible maximum transient vibration threshold of 0.04 PPV (in/sec).

**Table 4.14-6
 HUMAN ANNOYANCE VIBRATION CRITERIA**

Structure and Condition	Maximum Transient Vibration Levels PPV (in/sec)	Maximum Continuous Vibration Levels PPV (in/sec)
Barely perceptible	0.12	0.08
Distinctly perceptible	0.2	0.1
Strongly perceptible	0.5	0.25
Severe	0.5	0.3

4.14.4.4 San Bernardino International Airport (SBIA)

The Airport Gateway Specific Plan is located immediately north of the San Bernardino International Airport (SBIA). This places the Project Site within the SBIA Influence Area. The SBIA was initially built as Norton Air Force Base by the United States Air Force (USAF). Under the Base Realignment and Closure Act of 1990, Norton Air Force base was closed and disposed of by the USAF for a civilian aviation reuse in 1994 and transferred to the San Bernardino International Airport Authority (SBIAA). The SBIAA operates the facility as a public-use general aviation airport

that accommodates aircraft ranging from piston-powered propeller aircraft to multi-engine jet aircraft including large air cargo aircraft. The latest aircraft noise contour boundaries for the SBIA were published by the SBIAA on July 2, 2019 as part of the Eastgate Air Cargo Facility Final Environmental Assessment. Figure 4-6 of the Final Environmental Assessment (provided herein as Figure 4.14-6) describes the future 2024 Proposed Project CNEL Contours for the SBIA. The future SBIA noise level contours boundaries representing approximately 87,500 annual aircraft operations are shown on Figure 4.14-6.

As shown on Figure 4.14-6, the Project industrial land uses are generally located within the 60 to 65 dBA CNEL noise level contours of the SBIA. Therefore, the Project land use is considered normally acceptable according to the Cities of San Bernardino and Highland Land Use Compatibility for Community Noise Exposure as shown on Figure 4.14-1 and must reduce the interior noise levels to 50 dBA Leq to satisfy State of California Green Building Standards (Section 5.507.4.2) previously described in Section 3.2.

Standard building construction practices required under the State of California Green Building Standards Code (CALGreen) typically provide up to 25 dBA of attenuation. With respect to noise generated by the SBIA facilities and activities, application of standard CALGreen construction practices would yield acceptable Project interior noise levels of approximately 45 dBA Leq. In addition, at this time the Project does not propose or require facilities or actions that would contribute to or exacerbate noise generated by SBIA. Therefore, the Project would not be adversely affected by SBIA noise, nor would the Project contribute to or result in adverse airport noise impacts.

4.14.4.5 Incremental Noise Thresholds

While the Cities of San Bernardino and Highland General Plan Guidelines provide direction on noise compatibility and establish noise standards by land use type that are sufficient to assess the significance of noise impacts, they do not define the levels at which increases are considered substantial temporary or permanent for use under Guideline A. CEQA Appendix G Guideline C applies to the nearest public and private airports, if any, and the Project's land use compatibility.

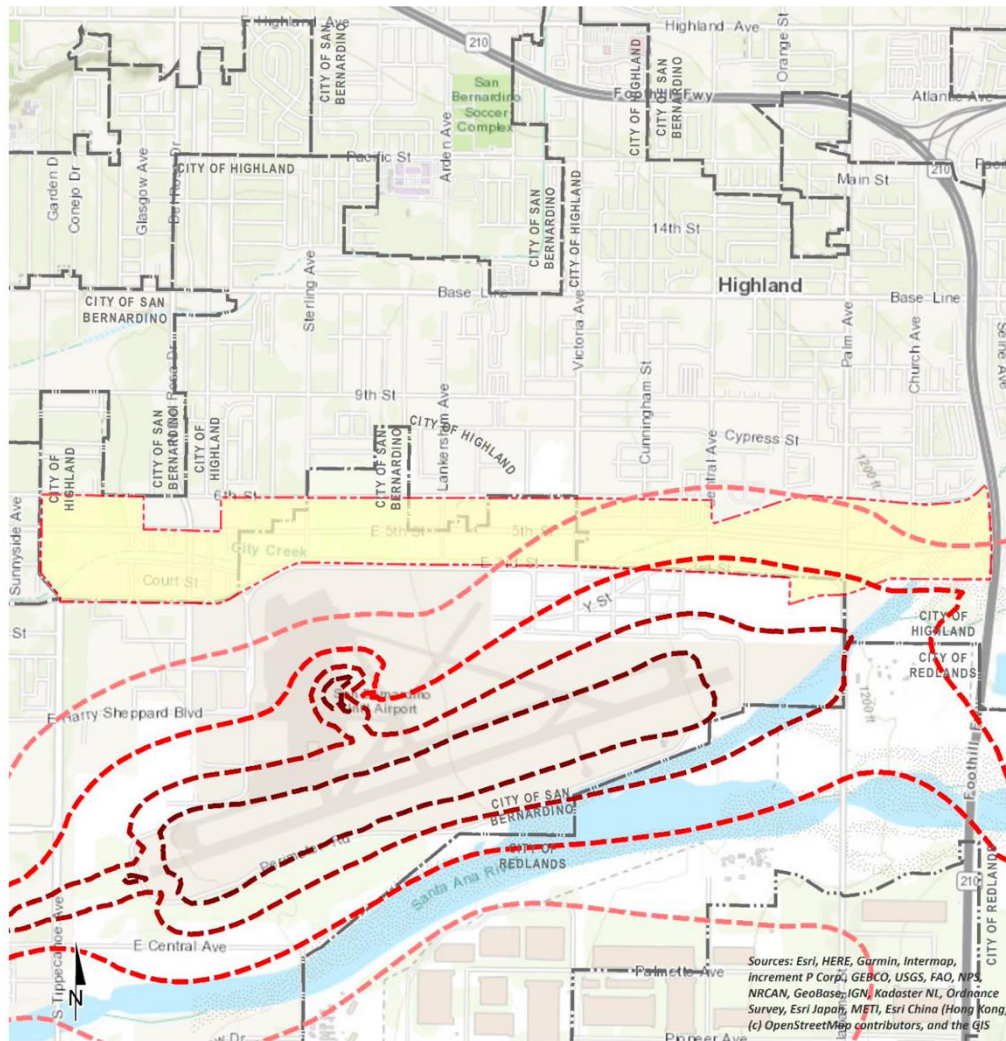
The SBIA noise contour boundaries are presented on Figure 4.14-6 of this report show that the Project is considered normally acceptable land use since it is located within the 60 to 65 dBA CNEL dBA CNEL noise level contour boundary and must reduce interior noise levels to 50 dBA Leq. Standard building construction practices required under the State of California Green Building Standards Code (CALGreen) typically provide up to 25 dBA CNEL of attenuation. As such, application of standard CALGreen construction practices would yield acceptable Project interior noise levels of approximately 45 dBA Leq. Since the Project would not be adversely affected by SBIA noise, nor would the Project contribute to or result in adverse airport noise impacts, potential airport noise impacts affecting the Project are therefore not further analyzed.

4.14.4.6 Noise-Sensitive Receivers

Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines described above at the nearest sensitive receiver locations. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise level increase represents a significant adverse environmental impact. In effect, there is no single noise increase that renders the noise impact significant. Unfortunately, there is no completely satisfactory way to measure

the subjective effects of noise or of the corresponding human reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person’s subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called ambient or existing noise background environment. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged. Since neither the Cities of San Bernardino and Highland General Plan Noise Element or Municipal Code identify any noise level increase thresholds, the substantial noise level increase criteria are derived from the FTA Transit Noise and Vibration Impact Assessment Manual.

**FIGURE 4.14-6
 SAN BERNARDINO INTERNATIONAL AIRPORT (SBIA) NOISE CONTOURS**



- LEGEND:** *San Bernardino International (SBD) Airport Future Noise Level Contour Boundaries*
- Development Site Boundary
 - 60 dBA CNEL
 - 65 dBA CNEL
 - 70 dBA CNEL
 - 75 dBA CNEL
 - Jurisdictional Boundaries

Source: Figure 4-6 of the Eastgate Air Cargo Facility Final Environmental Assessment published by the SBIAA on July 2, 2019.

To describe the amount to which a given noise level increase (stationary or mobile) is considered acceptable, the FTA criteria is used to evaluate the incremental noise level increase and establishes a method for comparing future project noise with existing ambient conditions under CEQA Significance Threshold A. The amount to which a given noise level increase is considered acceptable is reduced based on existing ambient noise conditions. In effect, the amount to which a given noise level increase is considered acceptable is reduced based on existing ambient noise conditions. Table 14.4-7 below provides a summary of the allowable criteria used to identify potentially significant incremental noise level increases for off-site and operational noise source activity.

**Table 4.14-7
 SIGNIFICANCE OF NOISE LEVEL INCREASES**

Without Project Noise Level	Potential Significant Impact (dBA CNEL)
< 55 dBA	5 dBA or more
55-60 dBA	3 dBA or more
60-65b dBA	2 dBA or more
> 65 dBA	1 dBA or more

4.14.4.7 Non-Noise-Sensitive Receivers

The Cities of San Bernardino and Highland General Plan Noise Element, Figure N-1, Land Use Compatibility for Community Noise Exposure was used to establish the satisfactory noise levels of significance for non-noise-sensitive land uses in the Project study area. As previously shown on Figure 4.14-1, the normally acceptable exterior noise level for non-noise-sensitive land use, such as office, retail and commercial use is 70 dBA CNEL and 75 dBA CNEL for industrial uses.

To determine if Project-related traffic noise level increases are significant at off-site non-noise-sensitive land uses, a barely perceptible 3 dBA criteria is used. When the without Project noise levels are greater than the normally acceptable 70 dBA CNEL land use compatibility criteria, a barely perceptible 3 dBA or greater noise level increase is considered a significant impact since the noise level criteria is already exceeded.

4.14.4.8 Significance Criteria Summary

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed Project. Table 4.14-8 shows the significance criteria summary matrix.

4.14.5 Methodology

This noise impact forecast from implementing the AGSP is based on a noise technical study prepared by Urban Crossroads which can be found in Appendix 9 of Volume 2 of this DPEIR. Urban Crossroads conducted a review of the local noise standards and the General Plan Noise Elements of both cities. The noise technical study summarizes information about the science of noise and then conducted a review of background noise sources prior to the onset of the Covid 19 pandemic. Using this background data and the information about future noise sources defined in the Project Description (Chapter 3 of this DPEIR), Urban Crossroads forecasted the future noise environment within the AGSP project area using noise models. The impact forecast that

follows summarizes the changes in the AGSP noise environment from implementing the proposed AGSP as defined in Chapter 3.

**Table 4.14-8
 SIGNIFICANCE CRITERIA SUMMARY**

Analysis	Land Use	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Off-Site	Noise-Sensitive ¹	If ambient is < 55 dBA CNEL	≥ 5 dBA CNEL Project increase	
		If ambient is 55-60 dBA CNEL	≥ 3 dBA CNEL Project increase	
		If ambient is 60-65b dBA CNEL	≥ 2 dBA CNEL Project increase	
		If ambient is > 65 dBA CNEL	≥ 1 dBA CNEL Project increase	
	Non-Noise-Sensitive ²	If ambient is > 70 dBA CNEL	≥ 3 dBA CNEL Project increase	
Operational ³	Noise-Sensitive ¹	Exterior Noise Level Limit ³	65 dBA Leq	
		If ambient is < 55 dBA Leq	≥ 5 dBA Leq Project increase	
		If ambient is 55-60 dBA Leq	≥ 3 dBA Leq Project increase	
		If ambient is 60-65b dBA Leq L	≥ 2 dBA Leq Project increase	
		If ambient is > 65 dBA Leq	≥ 1 dBA Leq Project increase	
	Non-Noise-Sensitive	If ambient is > 70 dBA Leq	≥ 3 dBA Leq Project increase	
Construction ⁴	Noise-Sensitive	Restricted to the hours within 7:00 a.m. and 8:00 p.m. ⁴		
		Noise Level Threshold ⁵	70 dBA Leq	n/a
		Building Damage Vibration Threshold	1.0 PPV (in/sec)	
		Human Annoyance Vibration Threshold	0.04 PPV (in/sec)	

1 Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, 2018. 2 City of San Bernardino General Plan Noise Element, Figure N-1.
 3 City of San Bernardino Development Code, Section 19.20.030.15(A) (Appendix 3.1).
 4 Section 8.54.070 of the City of San Bernardino Municipal Code (Appendix 3.1).
 5 Caltrans Transportation and Construction Vibration Guidance Manual, April 2020, Tables 19 & 20, p. 38.
 "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

4.14.6 Project Impacts

NOISE-1 Would the project 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?

TRAFFIC NOISE PREDICTION METHODS AND PROCEDURES

The following section outlines the methods and procedures used to model and analyze the future off-site traffic noise environment.

FHWA Traffic Noise Prediction Model

The expected roadway noise level increases from vehicular traffic were calculated by Urban Crossroads, Inc. using a computer program that replicates the Federal Highway Administration (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 then 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 which 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.

Off-Site Traffic Noise Prediction Model Inputs

Table 4.14-9 presents the roadway parameters used to assess the Project's off-site dBA CNEL transportation noise impacts. Table 4.14-9 identifies the 39 study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications per the City of San Bernardino and City of Highland General Plan Circulation Element, and the posted vehicle speeds. The ADT volumes used in this study area presented on Table 4.14-10 are based on the Traffic Impact Study provided as Appendix 11a, Volume 2 of this DPEIR prepared by Kimley-Horn and Associates, Inc. for the following traffic scenarios under both Without and With Project conditions: Existing, and Future Build-Out 2040.

OFF-SITE TRAFFIC NOISE IMPACTS

The ADT volumes vary for each roadway segment based on the existing traffic volumes and the combination of project traffic distributions. This analysis relies on a comparative evaluation of the off-site traffic noise impacts, without and with project ADT traffic volumes from the Project traffic study.

Traffic Noise Contours

Noise contours were used to assess the Project's incremental 24-hour dBA CNEL 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 CNEL 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 within the Project study area.

Table 4.14-9
 OFF-SITE ROADWAY PARAMETERS

ID	Roadway	Segment	Receiving Land Use ¹	Classification ²	Centerline Distance to Receiving Land Use (Feet) ³	Vehicle Speed (mph)
1	Waterman Avenue	Baseline Street to 5th Street	Sensitive	Major Arterial	50'	40
2	Waterman Avenue	5th Street to 3rd Street	Non-Sensitive	Major Arterial	50'	40
3	Tippecanoe Avenue	Baseline Street to 6th Street	Sensitive	Secondary Arterial	44'	45
4	Tippecanoe Avenue	6th Street to 3rd Street	Sensitive	Secondary Arterial	44'	45
5	Tippecanoe Avenue	3rd Street to Mill Street	Sensitive	Major Arterial	50'	45
6	Tippecanoe Avenue	Mill Street to Orange Show Road /San Bernardino Avenue	Sensitive	Major Arterial	50'	45
7	Tippecanoe Avenue	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	Sensitive	Major Arterial	50'	45
8	Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	Sensitive	Major Arterial	50'	45
9	Del Rosa Drive	Highland Avenue to Pacific Street	Sensitive	Major Arterial	33'	35
10	Del Rosa Drive	Pacific Street to Baseline Street	Sensitive	Major Arterial	50'	45
11	Del Rosa Drive	Baseline Street to 9th Street	Sensitive	Major Arterial	50'	45
12	Del Rosa Drive	9th Street to 6th Street	Sensitive	Major Arterial	50'	45
13	Del Rosa Drive	6th Street to 3rd Street	Sensitive	Major Arterial	50'	45
14	Sterling Avenue	Base Line to 9th Street	Sensitive	Major Arterial	50'	40
15	Sterling Avenue	9th Street to 6th Street	Sensitive	Major Arterial	50'	40
16	Sterling Avenue	6th Street to 3rd Street	Sensitive	Major Arterial	50'	40
17	Victoria Avenue	Highland Avenue to Pacific Street	Sensitive	Secondary Arterial	44'	40
18	Victoria Avenue	Pacific Street to Base Line	Sensitive	Secondary Arterial	44'	40
19	Victoria Avenue	Base Line to 9th Street	Sensitive	Secondary Arterial	44'	45
20	Victoria Avenue	9th Street to 6th Street	Sensitive	Secondary Arterial	44'	45
21	Victoria Avenue	6th Street to 3rd Street	Sensitive	Secondary Arterial	44'	45
22	6th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	Collector	30'	40
23	6th Street	Del Rosa Drive to Sterling Avenue	Sensitive	Collector	30'	40
24	6th Street	Sterling Avenue to Victoria Avenue	Sensitive	Collector	30'	40
25	6th Street	Victoria Avenue to Central Avenue	Sensitive	Collector	30'	40

ID	Roadway	Segment	Receiving Land Use ¹	Classification ²	Centerline Distance to Receiving Land Use (Feet) ³	Vehicle Speed (mph)
26	5th Street	I-215 NB Ramps to E Street	Sensitive	Major Arterial	50'	45
27	5th Street	E Street to Waterman Avenue	Sensitive	Major Arterial	50'	45
28	5th Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	Major Arterial	33'	45
29	5th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	Major Arterial	33'	45
30	5th Street	Del Rosa Drive to Sterling Avenue	Sensitive	Major Arterial	50'	45
31	5th Street	Sterling Avenue to Victoria Avenue	Sensitive	Major Arterial	33'	45
32	5th Street	Victoria Avenue to Central Avenue	Sensitive	Major Arterial	50'	45
33	5th Street	Central Avenue to Palm Avenue	Sensitive	Major Arterial	50'	45
34	5th Street	Palm Avenue to SR-210 EB Ramps	Non-Sensitive	Major Arterial	50'	45
35	3rd Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	Major Arterial	50'	45
36	3rd Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	Major Arterial	50'	45
37	3rd Street	Del Rosa Drive to Sterling Avenue	Sensitive	Major Arterial	50'	45
38	3rd Street	Sterling Avenue to Victoria Avenue	Sensitive	Major Arterial	50'	45
39	3rd Street	Victoria Avenue to Palm Avenue	Sensitive	Major Arterial	50'	45

¹ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

² City of San Bernardino Circulation Project Figure 3-11a and City of Highland Circulation Element Figure 3-12a.

³ Based upon the right-of-way distances for each roadway classification provided in the General Plan Circulation Element.

**Table 4.14-10
 AVERAGE DAILY TRAFFIC VOLUMES**

ID	Roadway	Segment	Average Daily Traffic Volumes ¹			
			Existing		Future Build-Out 2040	
			Without Project	With Project	Without Project	With Project
1	Waterman Avenue	Baseline Street to 5th Street	25,741	26,062	28,982	29,303
2	Waterman Avenue	5th Street to 3rd Street	27,528	28,232	31,551	32,255
3	Tippecanoe Avenue	Baseline Street to 6th Street	12,006	13,152	19,291	20,437
4	Tippecanoe Avenue	6th Street to 3rd Street	14,330	19,390	16,328	21,388
5	Tippecanoe Avenue	3rd Street to Mill Street	28,362	38,124	43,928	53,690
6	Tippecanoe Avenue	Mill Street to Orange Show Road /San Bernardino Avenue	32,591	42,353	47,921	57,683
7	Tippecanoe Avenue	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	25,471	35,233	29,159	38,921
8	Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	23,780	26,080	26,238	28,538
9	Del Rosa Drive	Highland Avenue to Pacific Street	17,645	19,945	19,585	21,885
10	Del Rosa Drive	Pacific Street to Baseline Street	12,318	14,618	15,318	17,618
11	Del Rosa Drive	Baseline Street to 9th Street	9,963	16,471	12,139	18,647
12	Del Rosa Drive	9th Street to 6th Street	9,871	16,379	12,294	18,802
13	Del Rosa Drive	6th Street to 3rd Street	9,576	11,560	12,774	14,758
14	Sterling Avenue	Base Line to 9th Street	13,368	16,806	13,433	16,871
15	Sterling Avenue	9th Street to 6th Street	10,609	12,775	14,385	16,551
16	Sterling Avenue	6th Street to 3rd Street	6,984	14,366	11,619	19,001
17	Victoria Avenue	Highland Avenue to Pacific Street	12,184	16,944	26,114	30,874
18	Victoria Avenue	Pacific Street to Base Line	14,431	19,687	17,643	22,899
19	Victoria Avenue	Base Line to 9th Street	11,210	16,466	13,063	18,319
20	Victoria Avenue	9th Street to 6th Street	8,368	13,624	10,302	15,558
21	Victoria Avenue	6th Street to 3rd Street	8,368	9,436	12,525	13,593
22	6th Street	Tippecanoe Avenue to Del Rosa Drive	3,249	4,491	5,359	6,601
23	6th Street	Del Rosa Drive to Sterling Avenue	4,714	7,674	7,501	10,461
24	6th Street	Sterling Avenue to Victoria Avenue	3,519	10,051	8,278	14,810
25	6th Street	Victoria Avenue to Central Avenue	4,047	10,918	5,844	12,715
26	5th Street	I-215 NB Ramps to E Street	30,975	43,371	37,481	49,877
27	5th Street	E Street to Waterman Avenue	20,083	32,479	22,657	35,053
28	5th Street	Waterman Avenue to Tippecanoe Avenue	9,167	22,329	13,621	26,783
29	5th Street	Tippecanoe Avenue to Del Rosa Drive	8,725	23,858	14,297	29,430
30	5th Street	Del Rosa Drive to Sterling Avenue	5,595	26,122	10,664	31,191
31	5th Street	Sterling Avenue to Victoria Avenue	3,911	25,904	8,476	30,469
32	5th Street	Victoria Avenue to Central Avenue	9,939	32,258	11,954	34,273
33	5th Street	Central Avenue to Palm Avenue	9,939	35,031	11,912	37,004
34	5th Street	Palm Avenue to SR-210 EB Ramps	26,098	52,097	33,870	59,869

ID	Roadway	Segment	Average Daily Traffic Volumes ¹			
			Existing		Future Build-Out 2040	
			Without Project	With Project	Without Project	With Project
35	3rd Street	Waterman Avenue to Tippecanoe Avenue	10,460	11,686	13,621	14,847
36	3rd Street	Tippecanoe Avenue to Del Rosa Drive	15,620	27,119	19,594	31,093
37	3rd Street	Del Rosa Drive to Sterling Avenue	18,143	28,583	34,523	44,963
38	3rd Street	Sterling Avenue to Victoria Avenue	13,457	19,662	21,178	27,383
39	3rd Street	Victoria Avenue to Palm Avenue	10,714	17,123	18,390	24,799

¹ Traffic Impact Study for the Airport Gateway Specific Plan Project, Kimley-Horn and Associates, Inc.

Table 4.14-11 provides the time of day (daytime, evening, and nighttime) vehicle splits. The daily Project truck trip-ends were assigned to the individual off-site study area roadway segments based on the Project truck trip distribution percentages documented in the Traffic Impact Study. Using the Project truck trips in combination with the Project trip distribution, Urban Crossroads, Inc. calculated the number of additional Project truck trips and vehicle mix percentages for each of the study area roadway segments. Table 4.14-12 shows the traffic flow by vehicle type (vehicle mix) used for all without Project traffic scenarios.

**Table 4.14-11
TIME OF DAY VEHICLE SPLITS**

Vehicle Type	Time of Day Splits ¹			Total of Time of Day Splits
	Daytime	Evening	Nighttime	
Autos	77.50%	12.90%	9.60%	100.00%
Medium Trucks	84.80%	4.90%	10.30%	100.00%
Heavy Trucks	86.50%	2.70%	10.80%	100.00%

¹ Typical Southern California vehicle mix.

"Daytime" = 7:00 a.m. to 7:00 p.m.; "Evening" = 7:00 p.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

**Table 4.14-12
WITHOUT PROJECT VEHICLE MIX**

Classification	Total % Traffic Flow			Total
	Autos	Medium Trucks	Heavy Trucks	
All Segments	97.86%	1.28%	0.86%	100.00%

Based on an existing vehicle count taken at Tippecanoe Avenue and 5th Street (Traffic Impact Study for the Airport Gateway Specific Plan, Kimley-Horn and Associates, Inc.). Vehicle mix percentage values rounded to the nearest one-hundredth.

To assess the off-site transportation CNEL noise level impacts associated with the proposed Project, noise contours were developed based on Airport Gateway Specific Plan Traffic Impact Study provided as Appendix 11a, Volume 2 of this DPEIR. Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway.

Tables 4.14-13 through 4.14-16 present a summary of the exterior dBA CNEL traffic noise levels without barrier attenuation. Roadway segments are analyzed from the without Project to the With Project conditions in each of the following timeframes: Existing and Future Build-Out 2040.

**Table 4.14-13
 EXISTING WITHOUT PROJECT NOISE CONTOURS**

ID	Road	Segment	Receiving Land Use ¹	CNEL at Nearest Receiving Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Waterman Avenue	Baseline Street to 5th Street	Sensitive	69.5	RW	99	214
2	Waterman Avenue	5th Street to 3rd Street	Non-Sensitive	71.4	62	135	290
3	Tippecanoe Avenue	Baseline Street to 6th Street	Sensitive	68.3	RW	73	156
4	Tippecanoe Avenue	6th Street to 3rd Street	Sensitive	69.0	RW	82	176
5	Tippecanoe Avenue	3rd Street to Mill Street	Sensitive	72.8	77	166	359
6	Tippecanoe Avenue	Mill Street to Orange Show Road /San Bernardino Avenue	Sensitive	71.8	66	141	304
7	Tippecanoe Avenue	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	Sensitive	72.4	72	155	334
8	Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	Sensitive	70.4	53	114	247
9	Del Rosa Drive	Highland Avenue to Pacific Street	Sensitive	69.0	RW	61	132
10	Del Rosa Drive	Pacific Street to Baseline Street	Sensitive	67.5	RW	74	159
11	Del Rosa Drive	Baseline Street to 9th Street	Sensitive	66.6	RW	64	138
12	Del Rosa Drive	9th Street to 6th Street	Sensitive	66.6	RW	64	137
13	Del Rosa Drive	6th Street to 3rd Street	Sensitive	66.4	RW	62	134
14	Sterling Avenue	Base Line to 9th Street	Sensitive	66.6	RW	64	138
15	Sterling Avenue	9th Street to 6th Street	Sensitive	65.6	RW	55	119
16	Sterling Avenue	6th Street to 3rd Street	Sensitive	63.8	RW	RW	90
17	Victoria Avenue	Highland Avenue to Pacific Street	Sensitive	67.1	RW	60	130
18	Victoria Avenue	Pacific Street to Base Line	Sensitive	67.8	RW	68	146
19	Victoria Avenue	Base Line to 9th Street	Sensitive	68.0	RW	69	149
20	Victoria Avenue	9th Street to 6th Street	Sensitive	66.7	RW	57	123
21	Victoria Avenue	6th Street to 3rd Street	Sensitive	66.7	RW	57	123
22	6th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	63.9	RW	RW	55
23	6th Street	Del Rosa Drive to Sterling Avenue	Sensitive	65.5	RW	33	70
24	6th Street	Sterling Avenue to Victoria Avenue	Sensitive	64.3	RW	RW	58
25	6th Street	Victoria Avenue to Central Avenue	Sensitive	64.9	RW	RW	63
26	5th Street	I-215 NB Ramps to E Street	Sensitive	71.5	63	136	294
27	5th Street	E Street to Waterman Avenue	Sensitive	69.7	RW	102	220
28	5th Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	68.8	RW	59	128
29	5th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	68.6	RW	57	124
30	5th Street	Del Rosa Drive to Sterling Avenue	Sensitive	64.1	RW	RW	94
31	5th Street	Sterling Avenue to Victoria Avenue	Sensitive	65.1	RW	34	73
32	5th Street	Victoria Avenue to Central Avenue	Sensitive	66.6	RW	64	138

ID	Road	Segment	Receiving Land Use ¹	CNEL at Nearest Receiving Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
33	5th Street	Central Avenue to Palm Avenue	Sensitive	66.6	RW	64	138
34	5th Street	Palm Avenue to SR-210 EB Ramps	Non-Sensitive	70.8	57	122	262
35	3rd Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	66.8	RW	66	143
36	3rd Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	68.6	RW	86	186
37	3rd Street	Del Rosa Drive to Sterling Avenue	Sensitive	69.2	RW	96	206
38	3rd Street	Sterling Avenue to Victoria Avenue	Sensitive	67.9	RW	78	169
39	3rd Street	Victoria Avenue to Palm Avenue	Sensitive	66.9	31	67	145

¹ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

² The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

**Table 4.14-14
EXISTING WITH PROJECT NOISE CONTOURS**

ID	Road	Segment	Receiving Land Use ¹	CNEL at Nearest Receiving Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Waterman Avenue	Baseline Street to 5th Street	Sensitive	69.5	RW	100	216
2	Waterman Avenue	5th Street to 3rd Street	Non-Sensitive	71.6	64	137	295
3	Tippecanoe Avenue	Baseline Street to 6th Street	Sensitive	68.7	RW	77	166
4	Tippecanoe Avenue	6th Street to 3rd Street	Sensitive	70.3	46	100	215
5	Tippecanoe Avenue	3rd Street to Mill Street	Sensitive	74.1	94	203	437
6	Tippecanoe Avenue	Mill Street to Orange Show Road / San Bernardino Avenue	Sensitive	72.9	78	168	362
7	Tippecanoe Avenue	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	Sensitive	73.8	89	192	414
8	Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	Sensitive	70.8	56	122	262
9	Del Rosa Drive	Highland Avenue to Pacific Street	Sensitive	69.6	RW	66	143
10	Del Rosa Drive	Pacific Street to Baseline Street	Sensitive	68.3	RW	83	178
11	Del Rosa Drive	Baseline Street to 9th Street	Sensitive	68.8	RW	90	193
12	Del Rosa Drive	9th Street to 6th Street	Sensitive	68.8	RW	89	192
13	Del Rosa Drive	6th Street to 3rd Street	Sensitive	67.3	RW	71	152
14	Sterling Avenue	Base Line to 9th Street	Sensitive	67.6	RW	75	161
15	Sterling Avenue	9th Street to 6th Street	Sensitive	66.4	RW	62	134
16	Sterling Avenue	6th Street to 3rd Street	Sensitive	66.9	RW	67	145
17	Victoria Avenue	Highland Avenue to Pacific Street	Sensitive	68.5	RW	75	162
18	Victoria Avenue	Pacific Street to Base Line	Sensitive	69.1	RW	83	179
19	Victoria Avenue	Base Line to 9th Street	Sensitive	69.6	RW	90	193
20	Victoria Avenue	9th Street to 6th Street	Sensitive	68.8	RW	79	170
21	Victoria Avenue	6th Street to 3rd Street	Sensitive	67.2	RW	62	133

ID	Road	Segment	Receiving Land Use ¹	CNEL at Nearest Receiving Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
22	6th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	65.3	RW	31	68
23	6th Street	Del Rosa Drive to Sterling Avenue	Sensitive	67.6	RW	45	97
24	6th Street	Sterling Avenue to Victoria Avenue	Sensitive	68.8	RW	54	116
25	6th Street	Victoria Avenue to Central Avenue	Sensitive	69.2	RW	57	123
26	5th Street	I-215 NB Ramps to E Street	Sensitive	73.0	79	171	368
27	5th Street	E Street to Waterman Avenue	Sensitive	71.7	65	141	303
28	5th Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	72.7	50	108	232
29	5th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	73.0	52	112	242
30	5th Street	Del Rosa Drive to Sterling Avenue	Sensitive	70.8	57	122	262
31	5th Street	Sterling Avenue to Victoria Avenue	Sensitive	73.3	55	119	256
32	5th Street	Victoria Avenue to Central Avenue	Sensitive	71.7	65	140	302
33	5th Street	Central Avenue to Palm Avenue	Sensitive	72.1	69	148	319
34	5th Street	Palm Avenue to SR-210 EB Ramps	Non-Sensitive	73.8	90	193	416
35	3rd Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	67.3	RW	71	154
36	3rd Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	71.0	58	125	269
37	3rd Street	Del Rosa Drive to Sterling Avenue	Sensitive	71.2	60	129	279
38	3rd Street	Sterling Avenue to Victoria Avenue	Sensitive	69.6	RW	101	217
39	3rd Street	Victoria Avenue to Palm Avenue	Sensitive	69.0	RW	92	198

¹ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

² The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

**Table 4.14-15
FUTURE BUILD-OUT 2040 WITHOUT PROJECT NOISE CONTOURS**

ID	Road	Segment	Receiving Land Use ¹	CNEL at Nearest Receiving Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Waterman Avenue	Baseline Street to 5th Street	Sensitive	70.0	50	108	232
2	Waterman Avenue	5th Street to 3rd Street	Non-Sensitive	72.0	68	147	317
3	Tippecanoe Avenue	Baseline Street to 6th Street	Sensitive	70.3	46	99	214
4	Tippecanoe Avenue	6th Street to 3rd Street	Sensitive	69.6	RW	89	192
5	Tippecanoe Avenue	3rd Street to Mill Street	Sensitive	74.7	103	223	480
6	Tippecanoe Avenue	Mill Street to Orange Show Road /San Bernardino Avenue	Sensitive	73.4	85	183	393
7	Tippecanoe Avenue	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	Sensitive	73.0	79	170	365
8	Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	Sensitive	70.8	57	122	263
9	Del Rosa Drive	Highland Avenue to Pacific Street	Sensitive	69.5	RW	66	141
10	Del Rosa Drive	Pacific Street to Baseline Street	Sensitive	68.5	RW	85	184

ID	Road	Segment	Receiving Land Use ¹	CNEL at Nearest Receiving Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
11	Del Rosa Drive	Baseline Street to 9th Street	Sensitive	67.5	RW	73	157
12	Del Rosa Drive	9th Street to 6th Street	Sensitive	67.5	RW	74	159
13	Del Rosa Drive	6th Street to 3rd Street	Sensitive	67.7	RW	76	163
14	Sterling Avenue	Base Line to 9th Street	Sensitive	66.7	RW	64	139
15	Sterling Avenue	9th Street to 6th Street	Sensitive	67.0	RW	67	145
16	Sterling Avenue	6th Street to 3rd Street	Sensitive	66.0	RW	59	126
17	Victoria Avenue	Highland Avenue to Pacific Street	Sensitive	70.4	47	100	216
18	Victoria Avenue	Pacific Street to Base Line	Sensitive	68.7	RW	77	167
19	Victoria Avenue	Base Line to 9th Street	Sensitive	68.6	RW	77	165
20	Victoria Avenue	9th Street to 6th Street	Sensitive	67.6	RW	65	141
21	Victoria Avenue	6th Street to 3rd Street	Sensitive	68.4	RW	75	161
22	6th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	66.1	RW	35	76
23	6th Street	Del Rosa Drive to Sterling Avenue	Sensitive	67.5	RW	44	95
24	6th Street	Sterling Avenue to Victoria Avenue	Sensitive	68.0	RW	47	102
25	6th Street	Victoria Avenue to Central Avenue	Sensitive	66.5	RW	38	81
26	5th Street	I-215 NB Ramps to E Street	Sensitive	72.4	72	155	334
27	5th Street	E Street to Waterman Avenue	Sensitive	70.2	51	111	239
28	5th Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	70.6	36	77	167
29	5th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	70.8	37	80	172
30	5th Street	Del Rosa Drive to Sterling Avenue	Sensitive	66.9	RW	67	144
31	5th Street	Sterling Avenue to Victoria Avenue	Sensitive	68.5	RW	56	121
32	5th Street	Victoria Avenue to Central Avenue	Sensitive	67.4	RW	72	156
33	5th Street	Central Avenue to Palm Avenue	Sensitive	67.4	RW	72	155
34	5th Street	Palm Avenue to SR-210 EB Ramps	Non-Sensitive	71.9	67	145	312
35	3rd Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	68.0	RW	79	170
36	3rd Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	69.6	RW	101	217
37	3rd Street	Del Rosa Drive to Sterling Avenue	Sensitive	72.0	68	147	316
38	3rd Street	Sterling Avenue to Victoria Avenue	Sensitive	69.9	RW	106	228
39	3rd Street	Victoria Avenue to Palm Avenue	Sensitive	69.3	RW	96	208

¹ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

² The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use. "RW" = Location of the respective noise contour falls within the right-of-way of the road.

**Table 4.14-16
 FUTURE BUILD-OUT 2040 WITH PROJECT NOISE CONTOURS**

ID	Road	Segment	Receiving Land Use ¹	CNEL at Nearest Receiving Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Waterman Avenue	Baseline Street to 5th Street	Sensitive	70.0	50	108	234
2	Waterman Avenue	5th Street to 3rd Street	Non-Sensitive	72.1	69	150	322
3	Tippecanoe Avenue	Baseline Street to 6th Street	Sensitive	70.6	48	103	223
4	Tippecanoe Avenue	6th Street to 3rd Street	Sensitive	70.8	49	107	230
5	Tippecanoe Avenue	3rd Street to Mill Street	Sensitive	75.6	118	255	549
6	Tippecanoe Avenue	Mill Street to Orange Show Road /San Bernardino Avenue	Sensitive	74.2	96	207	445
7	Tippecanoe Avenue	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	Sensitive	74.2	95	206	443
8	Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	Sensitive	71.2	60	129	278
9	Del Rosa Drive	Highland Avenue to Pacific Street	Sensitive	70.0	33	71	152
10	Del Rosa Drive	Pacific Street to Baseline Street	Sensitive	69.1	RW	94	202
11	Del Rosa Drive	Baseline Street to 9th Street	Sensitive	69.3	RW	97	210
12	Del Rosa Drive	9th Street to 6th Street	Sensitive	69.4	RW	98	211
13	Del Rosa Drive	6th Street to 3rd Street	Sensitive	68.3	RW	83	179
14	Sterling Avenue	Base Line to 9th Street	Sensitive	67.6	RW	75	162
15	Sterling Avenue	9th Street to 6th Street	Sensitive	67.6	RW	74	160
16	Sterling Avenue	6th Street to 3rd Street	Sensitive	68.2	RW	81	175
17	Victoria Avenue	Highland Avenue to Pacific Street	Sensitive	71.1	52	112	242
18	Victoria Avenue	Pacific Street to Base Line	Sensitive	69.8	RW	92	198
19	Victoria Avenue	Base Line to 9th Street	Sensitive	70.1	45	96	207
20	Victoria Avenue	9th Street to 6th Street	Sensitive	69.4	RW	86	186
21	Victoria Avenue	6th Street to 3rd Street	Sensitive	68.8	RW	79	170
22	6th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	67.0	RW	41	88
23	6th Street	Del Rosa Drive to Sterling Avenue	Sensitive	69.0	RW	55	119
24	6th Street	Sterling Avenue to Victoria Avenue	Sensitive	70.5	32	70	150
25	6th Street	Victoria Avenue to Central Avenue	Sensitive	69.8	RW	63	136
26	5th Street	I-215 NB Ramps to E Street	Sensitive	73.6	87	187	404
27	5th Street	E Street to Waterman Avenue	Sensitive	72.1	69	148	319
28	5th Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	73.5	56	121	262
29	5th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	73.9	60	129	279
30	5th Street	Del Rosa Drive to Sterling Avenue	Sensitive	71.6	64	137	295
31	5th Street	Sterling Avenue to Victoria Avenue	Sensitive	74.0	61	132	285
32	5th Street	Victoria Avenue to Central Avenue	Sensitive	72.0	68	146	315
33	5th Street	Central Avenue to Palm Avenue	Sensitive	72.3	71	154	331
34	5th Street	Palm Avenue to SR-210 EB Ramps	Non-Sensitive	74.4	98	212	456
35	3rd Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	68.3	RW	84	180

ID	Road	Segment	Receiving Land Use ¹	CNEL at Nearest Receiving Land Use (dBA) ²	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
36	3rd Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	71.6	64	137	295
37	3rd Street	Del Rosa Drive to Sterling Avenue	Sensitive	73.2	81	175	377
38	3rd Street	Sterling Avenue to Victoria Avenue	Sensitive	71.0	58	126	271
39	3rd Street	Victoria Avenue to Palm Avenue	Sensitive	70.6	55	118	254

¹ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

² The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

Existing With Project Traffic Noise Level Increases

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project has been included in this report to fully analyze all the existing traffic scenarios identified in Airport Gateway Specific Plan Traffic Impact Study. This condition is provided solely for informational purposes and will not actually occur, since the Project will not be fully developed and occupied under Existing conditions. Table 4.14-13 shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels are expected to range from 63.8 to 72.8 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 4.14-14 shows the Existing with Project conditions will range from 65.3 to 74.1 dBA CNEL. Table 4.14-15 shows that the Project off-site traffic noise level impacts will range from 0.0 to 8.2 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4.14-8, 28 of the study area roadway segments are shown to experience potentially significant off-site traffic noise level increases due to the proposed Project under Existing with Project conditions.

Future Build-Out 2040 With Project Traffic Noise Level Increases

Table 4.14-15 presents the Future Build-Out 2040 without Project conditions CNEL noise levels. The Future Build-Out 2040 without Project exterior noise levels are expected to range from 66.0 to 74.7 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 4.14-18 shows the Future Build-Out 2040 with Project conditions will range from 67.0 to 75.6 dBA CNEL. Table 4.14-18 shows that the Project off-site traffic noise level increases will range from 0.0 to 5.5 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4.14-8, 24 of the study area roadway segments are shown to experience potentially significant off-site traffic noise level increases due to the proposed Project under Future Build-Out (2040) with Project conditions.

**Table 4.14-17
 EXISTING WITH PROJECT TRAFFIC NOISE LEVEL INCREASES**

ID	Road	Segment	Receiving Land Use ¹	CNEL at Receiving Land Use (dBA) ²			Incremental Noise Level Increase Threshold ³	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Waterman Avenue	Baseline Street to 5th Street	Sensitive	69.5	69.5	0.0	1.0	No
2	Waterman Avenue	5th Street to 3rd Street	Non-Sensitive	71.4	71.6	0.2	1.0	No
3	Tippecanoe Avenue	Baseline Street to 6th Street	Sensitive	68.3	68.7	0.4	1.0	No
4	Tippecanoe Avenue	6th Street to 3rd Street	Sensitive	69.0	70.3	1.3	1.0	Yes
5	Tippecanoe Avenue	3rd Street to Mill Street	Sensitive	72.8	74.1	1.3	1.0	Yes
6	Tippecanoe Avenue	Mill Street to Orange Show Road /San Bernardino Avenue	Sensitive	71.8	72.9	1.1	1.0	Yes
7	Tippecanoe Avenue	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	Sensitive	72.4	73.8	1.4	1.0	Yes
8	Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	Sensitive	70.4	70.8	0.4	1.0	No
9	Del Rosa Drive	Highland Avenue to Pacific Street	Sensitive	69.0	69.6	0.6	1.0	No
10	Del Rosa Drive	Pacific Street to Baseline Street	Sensitive	67.5	68.3	0.8	1.0	No
11	Del Rosa Drive	Baseline Street to 9th Street	Sensitive	66.6	68.8	2.2	1.0	Yes
12	Del Rosa Drive	9th Street to 6th Street	Sensitive	66.6	68.8	2.2	1.0	Yes
13	Del Rosa Drive	6th Street to 3rd Street	Sensitive	66.4	67.3	0.9	1.0	No
14	Sterling Avenue	Base Line to 9th Street	Sensitive	66.6	67.6	1.0	1.0	Yes
15	Sterling Avenue	9th Street to 6th Street	Sensitive	65.6	66.4	0.8	1.0	No
16	Sterling Avenue	6th Street to 3rd Street	Sensitive	63.8	66.9	3.1	2.0	Yes
17	Victoria Avenue	Highland Avenue to Pacific Street	Sensitive	67.1	68.5	1.4	1.0	Yes
18	Victoria Avenue	Pacific Street to Base Line	Sensitive	67.8	69.1	1.3	1.0	Yes
19	Victoria Avenue	Base Line to 9th Street	Sensitive	68.0	69.6	1.6	1.0	Yes
20	Victoria Avenue	9th Street to 6th Street	Sensitive	66.7	68.8	2.1	1.0	Yes
21	Victoria Avenue	6th Street to 3rd Street	Sensitive	66.7	67.2	0.5	1.0	No
22	6th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	63.9	65.3	1.4	2.0	No
23	6th Street	Del Rosa Drive to Sterling Avenue	Sensitive	65.5	67.6	2.1	1.0	Yes
24	6th Street	Sterling Avenue to Victoria Avenue	Sensitive	64.3	68.8	4.5	2.0	Yes
25	6th Street	Victoria Avenue to Central Avenue	Sensitive	64.9	69.2	4.3	2.0	Yes
26	5th Street	I-215 NB Ramps to E Street	Sensitive	71.5	73.0	1.5	1.0	Yes
27	5th Street	E Street to Waterman Avenue	Sensitive	69.7	71.7	2.0	1.0	Yes

ID	Road	Segment	Receiving Land Use ¹	CNEL at Receiving Land Use (dBA) ²			Incremental Noise Level Increase Threshold ³	
				No Project	With Project	Project Addition	Limit	Exceeded?
28	5th Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	68.8	72.7	3.9	1.0	Yes
29	5th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	68.6	73.0	4.4	1.0	Yes
30	5th Street	Del Rosa Drive to Sterling Avenue	Sensitive	64.1	70.8	6.7	2.0	Yes
31	5th Street	Sterling Avenue to Victoria Avenue	Sensitive	65.1	73.3	8.2	1.0	Yes
32	5th Street	Victoria Avenue to Central Avenue	Sensitive	66.6	71.7	5.1	1.0	Yes
33	5th Street	Central Avenue to Palm Avenue	Sensitive	66.6	72.1	5.5	1.0	Yes
34	5th Street	Palm Avenue to SR-210 EB Ramps	Non-Sensitive	70.8	73.8	3.0	1.0	Yes
35	3rd Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	66.8	67.3	0.5	1.0	No
36	3rd Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	68.6	71.0	2.4	1.0	Yes
37	3rd Street	Del Rosa Drive to Sterling Avenue	Sensitive	69.2	71.2	2.0	1.0	Yes
38	3rd Street	Sterling Avenue to Victoria Avenue	Sensitive	67.9	69.6	1.7	1.0	Yes
39	3rd Street	Victoria Avenue to Palm Avenue	Sensitive	66.9	69.0	2.1	1.0	Yes

¹ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

² The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

³ Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4.14-9)?

**Table 4.14-18
FUTURE BUILD-OUT 2040 WITH PROJECT TRAFFIC NOISE INCREASES**

ID	Road	Segment	Receiving Land Use ¹	CNEL at Receiving Land Use (dBA) ²			Incremental Noise Level Increase Threshold ³	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Waterman Avenue	Baseline Street to 5th Street	Sensitive	70.0	70.0	0.0	1.0	No
2	Waterman Avenue	5th Street to 3rd Street	Non-Sensitive	72.0	72.1	0.1	1.0	No
3	Tippecanoe Avenue	Baseline Street to 6th Street	Sensitive	70.3	70.6	0.3	1.0	No
4	Tippecanoe Avenue	6th Street to 3rd Street	Sensitive	69.6	70.8	1.2	1.0	Yes
5	Tippecanoe Avenue	3rd Street to Mill Street	Sensitive	74.7	75.6	0.9	1.0	No
6	Tippecanoe Avenue	Mill Street to Orange Show Road /San Bernardino Avenue	Sensitive	73.4	74.2	0.8	1.0	No
7	Tippecanoe Avenue	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	Sensitive	73.0	74.2	1.2	1.0	Yes
8	Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	Sensitive	70.8	71.2	0.4	1.0	No
9	Del Rosa Drive	Highland Avenue to Pacific Street	Sensitive	69.5	70.0	0.5	1.0	No

ID	Road	Segment	Receiving Land Use ¹	CNEL at Receiving Land Use (dBA) ²			Incremental Noise Level Increase Threshold ³	
				No Project	With Project	Project Addition	Limit	Exceeded?
10	Del Rosa Drive	Pacific Street to Baseline Street	Sensitive	68.5	69.1	0.6	1.0	No
11	Del Rosa Drive	Baseline Street to 9th Street	Sensitive	67.5	69.3	1.8	1.0	Yes
12	Del Rosa Drive	9th Street to 6th Street	Sensitive	67.5	69.4	1.9	1.0	Yes
13	Del Rosa Drive	6th Street to 3rd Street	Sensitive	67.7	68.3	0.6	1.0	No
14	Sterling Avenue	Base Line to 9th Street	Sensitive	66.7	67.6	0.9	1.0	No
15	Sterling Avenue	9th Street to 6th Street	Sensitive	67.0	67.6	0.6	1.0	No
16	Sterling Avenue	6th Street to 3rd Street	Sensitive	66.0	68.2	2.2	1.0	Yes
17	Victoria Avenue	Highland Avenue to Pacific Street	Sensitive	70.4	71.1	0.7	1.0	No
18	Victoria Avenue	Pacific Street to Base Line	Sensitive	68.7	69.8	1.1	1.0	Yes
19	Victoria Avenue	Base Line to 9th Street	Sensitive	68.6	70.1	1.5	1.0	Yes
20	Victoria Avenue	9th Street to 6th Street	Sensitive	67.6	69.4	1.8	1.0	Yes
21	Victoria Avenue	6th Street to 3rd Street	Sensitive	68.4	68.8	0.4	1.0	No
22	6th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	66.1	67.0	0.9	1.0	No
23	6th Street	Del Rosa Drive to Sterling Avenue	Sensitive	67.5	69.0	1.5	1.0	Yes
24	6th Street	Sterling Avenue to Victoria Avenue	Sensitive	68.0	70.5	2.5	1.0	Yes
25	6th Street	Victoria Avenue to Central Avenue	Sensitive	66.5	69.8	3.3	1.0	Yes
26	5th Street	I-215 NB Ramps to E Street	Sensitive	72.4	73.6	1.2	1.0	Yes
27	5th Street	E Street to Waterman Avenue	Sensitive	70.2	72.1	1.9	1.0	Yes
28	5th Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	70.6	73.5	2.9	1.0	Yes
29	5th Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	70.8	73.9	3.1	1.0	Yes
30	5th Street	Del Rosa Drive to Sterling Avenue	Sensitive	66.9	71.6	4.7	1.0	Yes
31	5th Street	Sterling Avenue to Victoria Avenue	Sensitive	68.5	74.0	5.5	1.0	Yes
32	5th Street	Victoria Avenue to Central Avenue	Sensitive	67.4	72.0	4.6	1.0	Yes
33	5th Street	Central Avenue to Palm Avenue	Sensitive	67.4	72.3	4.9	1.0	Yes
34	5th Street	Palm Avenue to SR-210 EB Ramps	Non-Sensitive	71.9	74.4	2.5	1.0	Yes
35	3rd Street	Waterman Avenue to Tippecanoe Avenue	Sensitive	68.0	68.3	0.3	1.0	No
36	3rd Street	Tippecanoe Avenue to Del Rosa Drive	Sensitive	69.6	71.6	2.0	1.0	Yes
37	3rd Street	Del Rosa Drive to Sterling Avenue	Sensitive	72.0	73.2	1.2	1.0	Yes
38	3rd Street	Sterling Avenue to Victoria Avenue	Sensitive	69.9	71.0	1.1	1.0	Yes
39	3rd Street	Victoria Avenue to Palm Avenue	Sensitive	70.0	70.0	0.0	1.0	No

ID	Road	Segment	Receiving Land Use ¹	CNEL at Receiving Land Use (dBA) ²			Incremental Noise Level Increase Threshold ³	
				No Project	With Project	Project Addition	Limit	Exceeded?

¹ Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

² The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

³ Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4.14-9)?

Off-Site Traffic Noise Mitigation

To reduce the potentially significant Project traffic noise level increases on the 28 study area roadway segments for Existing plus Project, and on the 24 study area roadway segments for Future Build-Out with Project conditions, potential noise mitigation measures are identified in this analysis. Potential mitigation measures discussed below include rubberized asphalt hot mix pavement and off-site noise barriers for the existing residential land uses adjacent to impacted roadway segments.

Rubberized Asphalt

Due to the potential noise attenuation benefits, rubberized asphalt is considered as a mitigation measure for the off-site Project-related traffic noise level increases. To reduce traffic noise levels at the noise source, Caltrans research has shown that rubberized asphalt can provide noise attenuation of approximately 4 dBA for automobile traffic noise levels. Changing the pavement type of a roadway has been shown to reduce the amount of tire/pavement noise produced at the source under both near-term and long-term conditions. Traffic noise is generated primarily by the interaction of the tires and pavement, the engine, and exhaust systems. For automobile noise, as much as 75 to 90-percent of traffic noise is generated by the interaction of the tires and pavement, especially when traveling at higher and constant speeds. According to research conducted by Caltrans and the Canadian Ministry of Transportation and Highways a 4 dBA reduction in tire/pavement noise is attainable using rubberized asphalt under typical operating conditions.

The effectiveness of reducing traffic noise levels is higher on roadways with low percentages of heavy trucks, since the heavy truck engine and exhaust noise is not affected by rubberized alternative pavement due to the truck engine and exhaust stack height above the pavement itself. Per Caltrans guidance a truck stack height is modeled using a height of 11.5 feet above the road. With the primary off-site traffic noise source consisting of heavy trucks with a stack height of 11.5 feet off the ground, the tire/pavement noise reduction benefits associated rubberized asphalt will be primarily limited to autos.

While the off-site Project-related traffic noise level increases would theoretically be reduced with the 4 dBA reduction provided by rubberized asphalt, the reduction would not provide reliable benefits for the noise levels generated by heavy truck traffic. This is, as previously stated, due to the noise source height difference between automobiles and trucks. While rubberized asphalt will provide some noise reduction, this noise study recognizes that this is only effective for tire-on-pavement noise at higher speeds and would not reduce truck-related off-site traffic noise levels associated with truck engine and exhaust stacks to less than significant levels. Since the use of rubberized asphalt would not lower the off-site traffic noise levels below a level of significance, rubberized asphalt is not proposed as mitigation for the Project and the off-site Project-related traffic noise level increases at adjacent land uses would remain significant.

Off-Site Noise Barriers

Since existing and future noise-sensitive receiving land uses are located adjacent to the impacted roadway segments in the Project study area, off-site noise barriers were considered in this analysis as a potential traffic noise mitigation measure to reduce the impacts. Off-site noise barriers are estimated to provide a readily perceptible 5 dBA reduction which, according to the FHWA, is simple to attain when blocking the line-of-sight from the noise source to the receiver. As previously discussed, Caltrans guidance in the Highway Design Manual, Section 1102.3(3), indicates that for design purposes, the noise barrier should intercept the line of sight from the exhaust stack of a truck to the receptor, and an 11.5-foot-high truck stack height is assumed to represent the truck engine and exhaust noise source. Therefore, any exterior noise barriers at receiving noise sensitive land uses experiencing Project-related traffic noise level increases would need to be high enough and long enough to block the line-of-sight from the noise source (at 11.5 feet high per Caltrans) to the receiver (at 5 feet high per FHWA guidance) in order to provide a 5 dBA reduction per FHWA guidance.

In addition, according to FHWA guidance, outdoor living areas are generally limited to outdoor living areas of frequent human use (e.g., backyards of single-family homes). Therefore, front and side yards of residential homes adjacent to off-site roadway segments do not represent noise sensitive areas of frequent human use that require exterior noise mitigation. Exterior noise mitigation in the form of noise barriers is not anticipated to provide the FHWA attainable reduction of 5 dBA required to reduce the off-site traffic noise level increases and would also require potential openings for driveway access to individual residential lots fronting the road. As such, off-site noise barriers would not be feasible and would not lower the off-site traffic noise levels below a level of significance, and therefore, noise barriers are not proposed as mitigation for the Project.

Significant Off-Site Traffic Noise Impacts

Both rubberized asphalt and off-site noise barriers are considered as potential noise mitigation measures to reduce the potentially significant off-site traffic noise level increases shown on Tables 4.14-17 and 4.14-18. However, neither form of mitigation would eliminate the off-site traffic noise level increases at the adjacent land uses to the impacted roadway segments. Therefore, the Project-related off-site traffic noise level increases at adjacent noise-sensitive land are considered a ***significant and unavoidable impact***.

SENSITIVE RECEIVER LOCATIONS

To assess the potential for long-term operational and short-term construction noise impacts, the following sensitive receiver locations, as shown on Figure 4.14-7, were identified as representative locations for analysis. Sensitive receivers are generally defined 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. Moderately noise-sensitive land uses typically include multi-family dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

To describe the potential off-site Project noise levels, eight receiver locations in the vicinity of the Project site were identified. All distances are measured from the Project site boundary to the

outdoor living areas (e.g., private backyards) or at the building façade, whichever is closer to the Project site. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures. Distance is measured in a straight line from the project boundary to each receiver location.

- R1: Location R1 represents the existing noise sensitive residence at 7886 Fairfax Lane, approximately 74 feet north of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R1 is placed at the residential building façade. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.
- R2: Location R2 represents the existing noise sensitive residence at 25498 6th Street, approximately 84 feet north of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R2 is placed at the residential building façade. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.
- R3: Location R3 represents the existing noise sensitive residence at 26188 6th Street, approximately 98 feet north of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R3 is placed at the residential building façade. A 24-hour noise measurement near this location, L3, is used to describe the existing ambient noise environment.
- R4: Location R4 represents the existing noise sensitive residence at 26740 6th Street, approximately 31 feet north of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R4 is placed at the residential building façade. A 24-hour noise measurement near this location, L4, is used to describe the existing ambient noise environment.
- R5: Location R5 represents the Highland Branch Library at 7863 Central Avenue, approximately 209 feet northeast of the Project site. Receiver R5 is placed at the building façade. A 24-hour noise measurement near this location, L5, is used to describe the existing ambient noise environment.
- R6: Location R6 represents the existing noise sensitive residence at 27487 E 6th Street, approximately 123 feet north of the Project site. R6 is placed at the private outdoor living area (backyard) facing the Project site. A 24-hour noise measurement near this location, L6, is used to describe the existing ambient noise environment.
- R7: Location R6 represents the Trinity Christian Fellowship Church at 8174 Tippecanoe Avenue, approximately 72 feet southwest of the Project site. R7 is placed at the building façade. A 24-hour noise measurement near this location, L7 is used to describe the existing ambient noise environment.
- R8: Location R8 represents the existing noise sensitive residence at 7976 Tippecanoe Avenue, approximately 115 feet west of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R8 is placed at the

residential building façade. A 24-hour noise measurement near this location, L8, is used to describe the existing ambient noise environment.

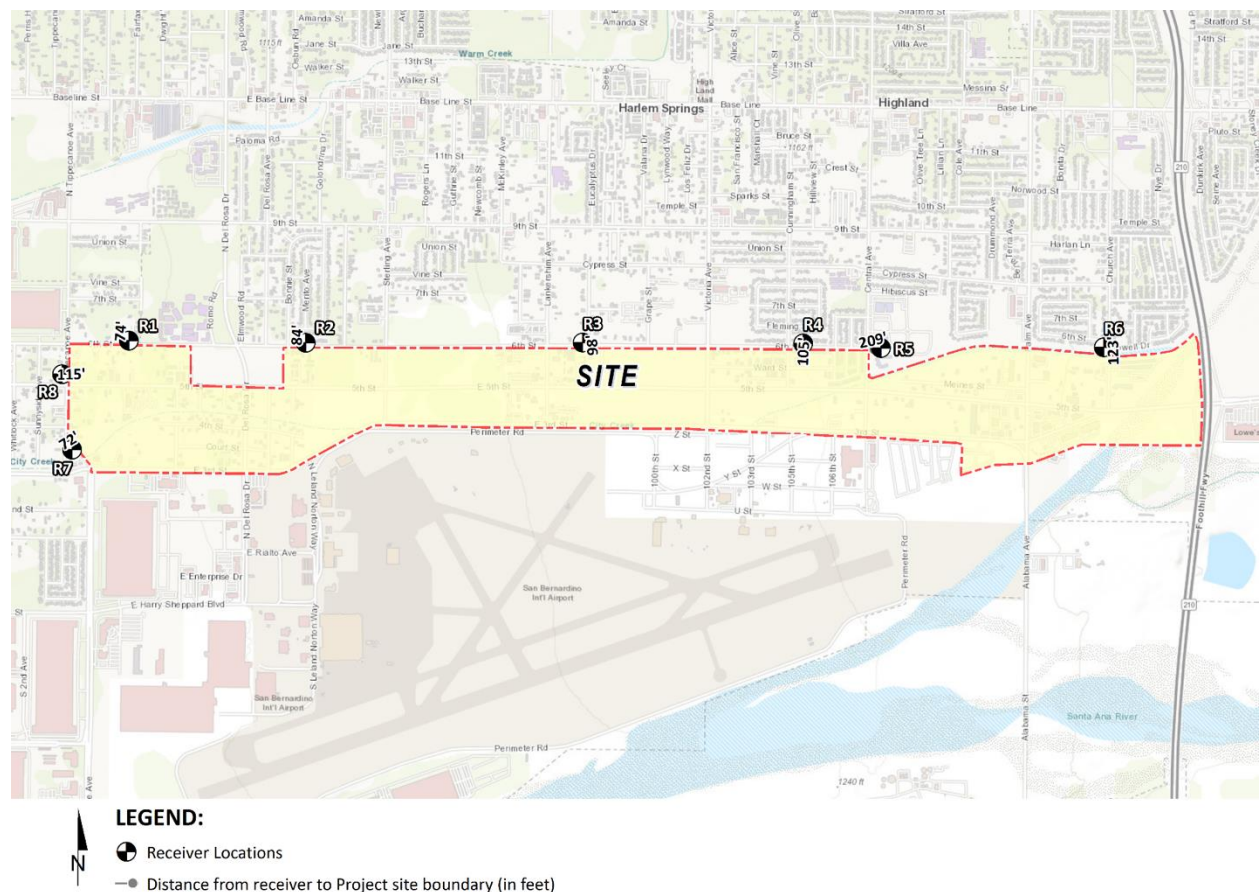
OPERATIONAL NOISE IMPACTS

This section analyzes the potential stationary-source operational noise impacts at the nearest receiver locations, identified in Section 8, resulting from the operation of the AGSP.

Operational Noise Sources

This operational noise analysis is intended to describe noise level impacts associated with the typical daytime and nighttime activities at the Project site. To present the potential worst-case noise conditions, this analysis assumes the Project would be operational 24 hours per day, seven days per week. The on-site Project-related noise sources are expected to include loading dock activity, delivery van activity, roof-top air conditioning units, parking lot vehicle activity, and trash enclosure activity all operating continuously.

**FIGURE 4.14-7
 SENSITIVE RECEIVER LOCATIONS**



Reference Noise Levels

To estimate the Project 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. This section provides a detailed description of the reference noise level measurements shown on Table 4.14-19 used to estimate the Project operational noise impacts. It is important to note that the following projected noise levels assume the worst-case noise environment with the loading dock activity, delivery van activity, roof-top air conditioning units, parking lot vehicle activity, and trash enclosure activity all operating continuously. These sources of noise activity will likely vary throughout the day.

Measurement Procedures

The reference noise level measurements presented in this section were collected using a Larson Davis LxT Type 1 precision sound level meter (serial number 01146). The LxT sound level meter was calibrated using a Larson-Davis calibrator, Model CAL 200, was programmed in "slow" mode to record noise levels in "A" weighted form and was located at approximately five feet above the ground elevation for each measurement. 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 (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013.

**Table 4.14-19
 FUTURE BUILD-OUT 2040 WITH PROJECT TRAFFIC NOISE INCREASES**

Noise Source ¹	Noise Source Height (Feet)	Min./Hour ²		Reference Noise Level @50 feet (dBA Leq)	Sound Power Level (dBA) ³
		Day	Night		
Loading Dock Activity	8'	60	60	65.7	111.5
Delivery Van Activity	5'	60	60	61.4	101.2
Roof-Top Air Conditioning Units	5'	39	28	57.2	88.9
Trash Enclosure Activity	5'	20	20	56.8	89.0
Parking Lot Activity	5'	60	60	55.5	79.9

¹ As measured by Urban Crossroads, Inc.

² 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.

³ 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.

Loading Dock Activity

The reference loading dock activities are intended to describe the typical operational noise activities associated with the Project. This includes truck idling, reefer activity (refrigerator truck/cold storage), deliveries, backup alarms, unloading/loading, docking including a combination of tractor trailer semi-trucks, two-axle delivery trucks, and background forklift operations. To describe the loading dock activities for cold storage, a reference noise level measurement was taken in the center of the loading dock activity area and represents multiple concurrent noise sources resulting in a combined noise level of 65.7 dBA Leq at a uniform distance of 50 feet. Specifically, the reference noise level measurement represents one truck located approximately 30 feet from the noise level meter with another truck passing by to park

roughly 20 feet away, both with their engines idling. Throughout the reference noise level measurement, a separate docked and running reefer truck was located approximately 50 feet east of the measurement location. Additional background noise sources included truck pass-by noise, truck drivers talking to each other next to docked trucks, and air brake release noise when trucks parked. Noise associated with parking lot vehicle movements is expected 24 hours per day.

Delivery Van Activity

To describe the delivery van activity, Urban Crossroads, collected reference noise level measurements from a delivery service partner. The delivery service partner maintains over 50 delivery vans and supporting operations. The reference noise level measurements suggest that at the center of activity the delivery vans generate a noise level of 61.4 dBA Leq at a reference distance of 50 feet. The delivery van activities are limited to the daytime hours with no deliveries during the noise sensitive nighttime hours.

Roof-Top Air Conditioning Units

To assess the noise levels created by the roof-top air conditioning units, reference noise level measurements were collected from a Lennox SCA120 series 10-ton model packaged air conditioning unit. At the uniform reference distance of 50 feet, the reference noise levels are 57.2 dBA Leq. Based on the typical operating conditions observed over a four-day measurement period, the roof-top air conditioning units are estimated to operate for an average of 39 minutes per hour during the daytime hours, and 28 minutes per hour during the nighttime hours. For this noise analysis, the air conditioning units are expected to be located on the roof of the proposed building. This reference noise level describes the expected roof-top air conditioning units located 5 feet above the roof for the planned air conditioning units at future buildings.

Trash Enclosure Activity

To describe the noise levels associated with a trash enclosure activity, Urban Crossroads collected a reference noise level measurement at an existing trash enclosure containing two dumpster bins. The trash enclosure noise levels describe metal gates opening and closing, metal scraping against concrete floor sounds, dumpster movement on metal wheels, and trash dropping into the metal dumpster. The reference noise levels describe trash enclosure noise activities when trash is dropped into an empty metal dumpster, as would occur at the Project Site. The measured reference noise level at the uniform 50-foot reference distance is 56.8 dBA Leq for the trash enclosure activity. The reference noise level describes the expected noise source activities associated with the trash enclosures for the Project's proposed future buildings. Typical trash enclosure activities are estimated to occur for 20 minutes per hour.

Parking Lot Activity

To determine the noise levels associated with parking lot vehicle movements, Urban Crossroads collected reference noise level measurements at an existing warehouse parking lot. The reference noise level at 50 feet from parking lot vehicle movements was measured at 55.5 dBA Leq. The parking lot noise levels are mainly due to employee shift changes with cars pulling in and out of spaces during peak lunch hour activity and employees talking. Noise associated with parking lot vehicle movements is expected 24 hours per day.

CadnaA Noise Prediction Model

To fully describe the exterior operational noise levels from the Project, Urban Crossroads, Inc. developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement)

computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate Project site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels. Using the ISO 9613 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the ground 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 source. Consistent with the ISO 9613 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. Leq) 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 from 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 provided 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 noise analysis to account for mixed ground representing a combination of hard and soft surfaces consistent with study area conditions.

Project Operational Noise Levels

Using the reference noise levels to represent the proposed future Project operations that include loading dock activity, delivery van activity, roof-top air conditioning units, parking lot vehicle activity, and trash enclosure activity, Urban Crossroads, Inc. calculated the unmitigated operational source noise levels that are expected to be generated at the Project site and the Project-related noise level increases that would be experienced at each of the sensitive receiver locations. The hourly Project operational noise levels at the off-site receiver locations are expected to range from 60.9 to 62.9 dBA L_{eq}.

Project Operational Noise Level Compliance

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior noise level thresholds based on the exterior noise level standards at nearest noise-sensitive receiver locations. Table 4.14-20 shows the operational noise levels associated with AGSP will satisfy the 65 dBA L_{eq} exterior noise level standards at the nearest receiver locations. Therefore, the operational noise impacts are considered *less than significant* at the nearest noise-sensitive receiver locations.

Project Operational Noise Level Increases

To describe the Project operational noise level increases, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearest 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 arithmetic 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.

**Table 4.14-20
 OPERATIONAL NOISE LEVEL COMPLIANCE**

Receiver Location ¹	Project Noise Level (dBA Leq) ²	Noise Level Standards (dBA Leq) ³	Noise Level Standards Exceeded? ⁴
R1	62.9	65	No
R2	62.7	65	No
R3	62.7	65	No
R4	62.5	65	No
R5	60.9	65	No
R6	62.2	65	No
R7	62.5	65	No
R8	61.5	65	No

¹See Figure 4.14-7 for the receiver locations.

² Project CadnaA operational noise level calculations are included in Appendix 9.1.

³ Exterior noise level standards as shown on Table 4.14-9.

⁴ Do the estimated Project operational noise source activities exceed the noise level standards?

The difference between the combined Project and ambient noise levels describe the Project noise level increases to the existing ambient noise environment. As indicated on Tables 4.14-21 and 4.14-22, the Project will generate daytime and nighttime operational noise level increases ranging from 0.9 to 12.7 dBA Leq at the nearest receiver locations. Therefore, the unmitigated Project operational incremental noise level increase is considered *potentially significant*.

**Table 4.14-21
 DAYTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES (UNMITIGATED)**

Receiver Location ¹	Total Project Operational Noise Level ²	Measurement Location ³	Reference Ambient Noise Levels ⁴	Combined Project and Ambient ⁵	Project Increase ⁶	Noise Sensitive Land Use?	Increase Criteria ⁷	Increase Criteria Exceeded?
R1	62.9	L1	57.7	64.0	6.3	Yes	3.0	Yes
R2	62.7	L2	64.2	66.5	2.3	Yes	3.0	No
R3	62.7	L3	60.5	64.7	4.2	Yes	3.0	Yes
R4	62.5	L4	61.4	65.0	3.6	Yes	3.0	Yes
R5	60.9	L5	51.9	61.4	9.5	Yes	5.0	Yes
R6	62.2	L6	58.5	63.7	5.2	Yes	5.0	Yes
R7	62.5	L7	70.6	71.2	0.6	Yes	1.5	No
R8	61.5	L8	64.4	66.2	1.8	Yes	3.0	No

- ¹ See Figure 4.14-7 for the receiver locations.
- ² Total Project operational noise levels as shown on Table 4.14-21.
- ³ Reference noise level measurement locations as shown on Figure 4.14-5.
- ⁴ Observed daytime ambient noise levels as shown on Table 4.14-6.
- ⁵ Represents the combined ambient conditions plus the Project activities.
- ⁶ The noise level increase expected with the addition of the proposed Project activities.
- ⁷ Significance increase criteria as shown on Table 4.14-5.

**Table 4.14-22
 NIGHTTIME OPERATIONAL NOISE LEVEL INCREASES (UNMITIGATED)**

Receiver Location ¹	Total Project Operational Noise Level ²	Measurement Location ³	Reference Ambient Noise Levels ⁴	Combined Project and Ambient ⁵	Project Increase ⁶	Noise Sensitive Land Use?	Increase Criteria ⁷	Increase Criteria Exceeded?
R1	62.9	L1	54.9	63.5	8.6	Yes	5.0	Yes
R2	62.7	L2	59.1	64.3	5.2	Yes	3.0	Yes
R3	62.7	L3	57.2	63.8	6.6	Yes	3.0	Yes
R4	62.5	L4	58.6	64.0	5.4	Yes	3.0	Yes
R5	60.9	L5	48.4	61.1	12.7	Yes	5.0	Yes
R6	62.2	L6	57.1	63.4	6.3	Yes	3.0	Yes
R7	62.5	L7	68.8	69.7	0.9	Yes	1.0	No
R8	61.5	L8	61.6	64.6	3.0	Yes	2.0	Yes

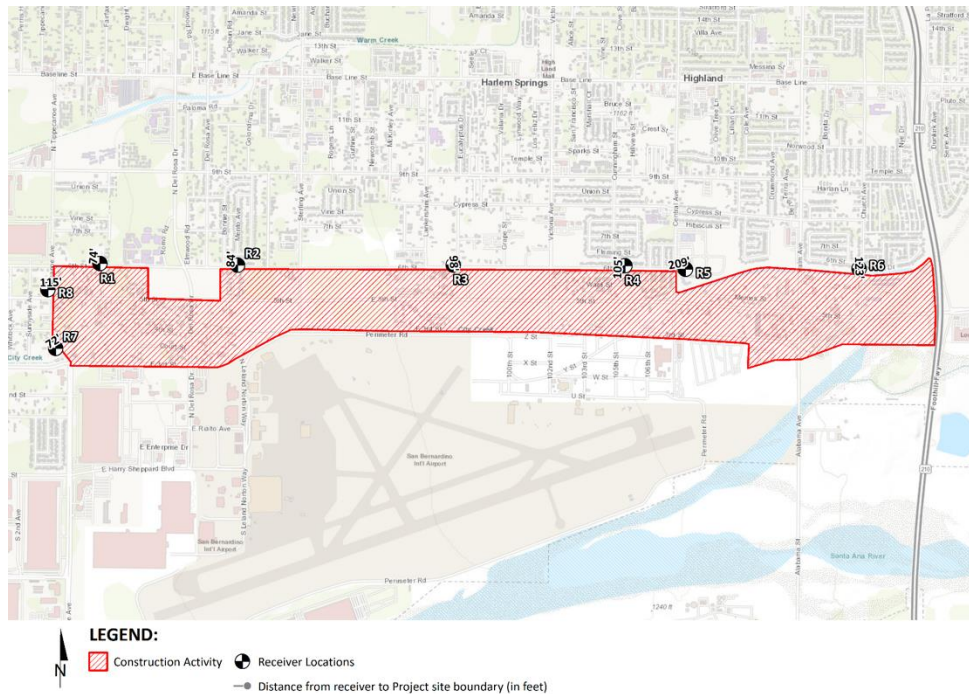
- ¹ See Figure 4.14-7 for the receiver locations.
- ² Total Project operational noise levels as shown on Table 4.14-21.
- ³ Reference noise level measurement locations as shown on Figure 4.14-5.
- ⁴ Observed daytime ambient noise levels as shown on Table 4.14-6.
- ⁵ Represents the combined ambient conditions plus the Project activities.
- ⁶ The noise level increase expected with the addition of the proposed Project activities.
- ⁷ Significance increase criteria as shown on Table 4.14-5.

As indicated on Tables 4.14-21 and 4.14-22, the Project will contribute unmitigated operational noise level increases during the daytime and nighttime hours ranging from 0.9 to 12.7 dBA L_{eq} at the nearby sensitive receiver locations. Based on the ambient noise levels, the Project operational noise level increases will exceed the significance criteria and therefore, the increases at the sensitive receiver locations will be **potentially significant**. However, mitigation has been identified that would reduce operational noise impacts below significance thresholds. These mitigation measures are presented at the end of this section.

CONSTRUCTION IMPACTS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Figures 4.14-8 show the construction noise source locations in relation to the nearest sensitive receiver locations previously described.

FIGURE 4.14-8
TYPICAL CONSTRUCTION NOISE SOURCE LOCATIONS



Construction Noise Levels

Noise generated by the Project construction equipment will include a combination of trucks, power tools, concrete mixers, and portable generators operating simultaneously that when combined can reach high levels. The number and mix of construction equipment are expected to occur in the following stages:

- Demolition
- Site Preparation
- Grading
- Building Construction
- Paving/Landscaping
- Architectural Coating

This construction noise analysis was prepared using reference noise level measurements taken by Urban Crossroads, Inc. to describe the typical construction activity noise levels for each stage of Project construction. The construction reference noise level measurements represent a list of typical construction activity noise levels. Noise levels generated by heavy construction equipment can range from approximately 68 dBA to more than 80 dBA when measured at 50 feet. However, these noise levels diminish with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 80 dBA measured at 50 feet from the noise source to the receiver would be reduced to 74 dBA at 100 feet from the source to the receiver, and would be further reduced to 68 dBA at 200 feet from the source to the receiver.

Typical Construction Reference Noise Levels

To describe the Project typical construction noise levels, measurements were collected for similar activities at several construction sites. Table 4.14-23 provides a summary of the construction reference noise level measurements. Since the reference noise levels were collected at varying distances of 30 feet and 50 feet, all construction noise level measurements presented on Table 4.14-23 have been adjusted for consistency to describe a uniform reference distance of 50 feet.

**Table 4.14-23
 TYPICAL CONSTRUCTION REFERENCE NOISE LEVELS**

Construction Stage	Reference Construction Activity¹	Reference Noise Level @ 50 Feet (dBA L_{eq})	Highest Reference Noise Level (dBA L_{eq})
Demolition	Demolition Activity	67.9	71.9
	Backhoe	64.2	
	Water Truck Pass-By & Backup Alarm	71.9	
Site Preparation	Scraper, Water Truck, & Dozer Activity	75.3	75.3
	Backhoe	64.2	
	Water Truck Pass-By & Backup Alarm	71.9	
Grading	Rough Grading Activities	73.5	73.5
	Water Truck Pass-By & Backup Alarm	71.9	
	Construction Vehicle Maintenance Activities	67.5	
Building Construction	Foundation Trenching	68.2	71.6
	Framing	62.3	
	Concrete Mixer Backup Alarms & Air Brakes	71.6	
Paving/ Landscaping	Concrete Mixer Truck Movements	71.2	71.2
	Concrete Paver Activities	65.6	
	Concrete Mixer Pour & Paving Activities	65.9	
Architectural Coating	Air Compressors	65.2	65.2
	Generator	64.9	
	Crane	62.3	

¹ Reference construction noise level measurements taken by Urban Crossroads, Inc.

Typical Construction Noise Analysis

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts with multiple pieces of equipment operating simultaneously at the nearest sensitive receiver locations were completed. To assess the worst-case construction noise levels, the Project construction noise analysis relies on the highest noise level impacts when the equipment with the highest reference noise level is operating at the closest point from the edge of primary construction activity (Project Site boundary) to each receiver location. As shown on Table 4.14-24, the construction noise levels are expected to range from 60.4 to 72.5 dBA L_{eq}, and the highest construction levels are expected to range from 70.5 to 72.5 dBA L_{eq} at the nearest receiver locations.

**Table 4.14-24
 TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY**

Receiver Location ¹	Construction Noise Levels (dBA L _{eq})						
	Demolition	Site Preparation	Grading	Building Construction	Paving/Landscaping	Architectural Coating	Highest Levels ²
R1	69.1	72.5	70.7	68.8	68.4	62.4	72.5
R2	68.8	72.2	70.4	68.5	68.1	62.1	72.2
R3	68.8	72.2	70.4	68.5	68.1	62.1	72.2
R4	68.7	72.1	70.3	68.4	68.0	62.0	72.1
R5	67.1	70.5	68.7	66.8	66.4	60.4	70.5
R6	68.4	71.8	70.0	68.1	67.7	61.7	71.8
R7	68.7	72.1	70.3	68.4	68.0	62.0	72.1
R8	67.7	71.1	69.3	67.4	67.0	61.0	71.1

¹ Noise receiver locations are shown Figure 4.14-7.

² Construction noise level calculations based on distance from the project site boundaries (construction activity area) to nearby receiver locations. CadnaA construction noise model inputs are included in Appendix 10.1.

Typical Construction Noise Level Compliance

To evaluate whether the Project will generate potentially significant short-term noise levels at nearest receiver locations, a construction-related daytime noise level threshold of 80 dBA Leq is used as a reasonable threshold to assess the daytime construction noise level impacts. The construction noise analysis shows that the nearest receiver locations will satisfy the reasonable daytime 80 dBA Leq significance threshold during Project construction activities as shown on Table 4.14-25. Therefore, the noise impacts due to Project construction noise is considered less than significant at all nearest receiver locations.

**Table 4.14-25
 TYPICAL CONSTRUCTION NOISE LEVEL COMPLIANCE**

Receiver Location ¹	Construction Noise Levels (dBA L _{eq})		
	Highest Construction Noise Levels ²	Threshold ³	Threshold Exceeded? ⁴
R1	72.5	80	No
R2	72.2	80	No
R3	72.2	80	No
R4	72.1	80	No
R5	70.5	80	No
R6	71.8	80	No
R7	72.1	80	No
R8	71.1	80	No

¹ Noise receiver locations are shown on Figure 4.14-7.

² Highest construction noise level calculations based on distance from the construction noise source activity to nearby receiver locations as shown on Table 4.14-24

³ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual.

⁴ Do the estimated Project construction noise levels exceed the construction noise level threshold?

As indicated on Table 4.14-25, construction noise levels would not exceed the 80 dBA L_{eq} threshold. Based on the ambient noise levels, the Project construction noise level increases will remain below the significance criteria and therefore, the increases at the sensitive receiver locations will be **less than significant**. On this basis, Project construction noise would not result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of a project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

NOISE-2 Would the Project result in generation of excessive ground-borne vibration or ground-borne noise levels?

CONSTRUCTION VIBRATION

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods employed. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Ground vibration levels associated with various types of construction equipment are summarized on Table 4.14-26. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential for human response (annoyance) and building damage using the following vibration assessment methods defined by the FTA. To describe the vibration impacts the FTA provides the following equation: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

**Table 4.14-26
 VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT**

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual

Table 4.14-27 presents the expected Project related typical construction activity vibration levels at each of the receiver locations. At distances ranging from 72 to 209 feet from Project construction activity, the transient construction vibration velocity levels are estimated to range from 0.004 to 0.018 PPV in/sec, as shown on Table 4.14-27. Based on maximum acceptable transient vibration threshold of 1.0 PPV (in/sec) for new residential structures, the typical Project construction vibration levels will satisfy the building damage thresholds at all the nearest receiver locations.

In addition, the construction vibration analysis on Table 4.14-27 shows that the vibration levels will satisfy the barely perceptible maximum transient vibration human annoyance threshold of 0.04 PPV (in/sec) at all the nearest receiver locations. Therefore, the vibration impacts due to the typical Project construction activities are considered less than significant. In addition, the typical construction vibration levels at the nearest sensitive receiver locations are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site boundaries.

Table 4.14-27
 TYPICAL CONSTRUCTION EQUIPMENT VIBRATION LEVELS

Receiver ¹	Structure Type ²	Distance to Const. Activity (Feet) ³	Typical Construction Vibration Levels PPV (in/sec) ⁴					Thresholds PPV (in/sec) ⁵		Thresholds Exceeded? ⁶	
			Small bulldozer	Jackhammer	Loaded Trucks	Large bulldozer	Highest Vibration Level	Building Damage	Human Annoyance	Building Damage	Human Annoyance
R1	Residential	74'	0.001	0.007	0.015	0.017	0.017	1.00	0.04	No	No
R2	Residential	84'	0.000	0.006	0.012	0.014	0.014	1.00	0.04	No	No
R3	Residential	98'	0.000	0.005	0.010	0.011	0.011	1.00	0.04	No	No
R4	Residential	105'	0.000	0.004	0.009	0.010	0.010	1.00	0.04	No	No
R5	Library	209'	0.000	0.001	0.003	0.004	0.004	1.00	0.04	No	No
R6	Residential	123'	0.000	0.003	0.007	0.008	0.008	1.00	0.04	No	No
R7	Church	72'	0.001	0.007	0.016	0.018	0.018	1.00	0.04	No	No
R8	Residential	115'	0.000	0.004	0.008	0.009	0.009	1.00	0.04	No	No

¹ Receiver locations are shown on Figure 4.14-7.

² Caltrans Transportation and Construction Vibration Guidance Manual, April 2020, Tables 19, p. 38.

³ Distance from receiver location to Project construction boundary.

⁴ Based on the Vibration Source Levels of Construction Equipment (Table 4.14-26).

⁵ Thresholds for transient sources associated with typical construction activities, Caltrans Transportation and Construction Vibration Manual, April 2020 p.38. (see Tables 4.14-7 & 4.14-8).

⁶ Does the peak vibration exceed the acceptable vibration thresholds?

"PPV" = Peak Particle Velocity

OPERATIONAL VIBRATION

The Project operational vibration impacts will include heavy trucks moving on site to and from the loading dock areas. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement conditions. According to the FTA Transit Noise Impact and Vibration Assessment trucks rarely create vibration that exceed 70 VdB (unless there are bumps due to frequent potholes in the road). Since the trucks transiting on site will be travelling at very low speeds on smooth surfaces, it is expected that delivery truck vibration impacts at nearby receiver locations will satisfy the vibration perceptibility threshold of 65 VdB and therefore, will be less than significant.

Mitigation Measures: None Required.

Level of Significance After Mitigation: Less Than Significant

4.14.4.1 CEQA Guidelines Not Further Analyzed

NOISE-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, would the project expose people residing or working in the project area to excessive noise levels?

Please refer to the discussion under Subsection 4.14.4.4, San Bernardino International Airport (SBIA). Ultimately, as shown on Figure 4.14-6, the Project industrial land uses are generally

located within the 60 to 65 dBA CNEL noise level contours of the SBIA. Standard building construction practices required under the State of California Green Building Standards Code (CALGreen) typically provide up to 25 dBA of attenuation. With respect to noise generated by the SBIA facilities and activities, application of standard CALGreen construction practices would yield acceptable Project interior noise levels of approximately 45 dBA Leq. In addition, at this time the Project does not propose or require facilities or actions that would contribute to or exacerbate noise generated by SBIA. Therefore, the Project would not be adversely affected by SBIA noise, nor would the Project contribute to or result in adverse airport noise impacts.

4.14.7 Mitigation Measures

As stated above, implementation of the AGSP would result in development that has the potential to result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of a project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. The following measures are required to minimize noise impacts to the greatest extent feasible. The measures are arranged by noise generation source:

Off-Site Traffic Noise

Rubberized asphalt and off-site noise barriers were determined to be infeasible to minimize potentially significant Project traffic noise level increases on the 28 study area roadway segments for Existing plus Project, and on the 24 study area roadway segments for Future Build-Out with Project conditions. As such, no feasible mitigation is available to minimize impacts thereof.

Operational Noise Abatement Measures

NOI-1: *To reduce potential operational noise levels increases at the nearby noise-sensitive receiver locations, the AGSP shall include the following operational noise mitigation measures:*

- *The AGSP shall be designed to minimize the potential noise exposure to nearby noise sensitive land uses including:*
 - *locating driveways and vehicle access points away from noise sensitive uses.*
 - *locating loading docks away from adjacent noise sensitive uses.*
 - *minimize the use of outside speakers and amplifiers.*
 - *incorporate walls landscaping and other noise buffers and barriers between uses, as appropriate.*
- *Sound barrier walls or earth berms of sufficient height and length shall be provided to reduce exterior noise levels to 65 CNEL or lower at nearby noise sensitive uses. Prior to the issuance of grading permits, an acoustical analysis report shall be prepared by a qualified acoustical consultant. The report shall specify the noise barriers' height, location, and types capable of achieving the desired mitigation affect.*
- *All on-site operating equipment that is used in outdoor areas (including but not limited to trucks, tractors, forklifts, and hostlers), shall be operated with properly functioning and well-maintained mufflers.*
- *Maintain quality pavement conditions on the property that are free of vertical deflection (i.e., speed bumps) to minimize truck noise.*
- *The truck access gates and loading docks within the truck court on the Project site shall be posted with signs which state:*
 - *Truck drivers shall turn off engines when not in use;*

- ***Diesel trucks servicing the Project shall not idle for more than five (5) minutes; and***
- ***Post telephone numbers of the building facilities manager to report idling violations.***

With the implementation of the recommended operational noise mitigation measures, the incremental operational noise level increase will be reduced to less than significant.

Construction Noise Abatement Measures

Though construction noise is temporary, intermittent and of short duration, and will not present any long-term impacts, the following measures would reduce any noise level increases produced by the construction equipment to the nearby noise sensitive residential land uses. These are mandatory measures to be implemented during project construction.

- NOI-2 During all future AGSP construction, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. The construction contractors shall place all stationary construction equipment so that emitted noise is directed away from the noise-sensitive receivers nearest to a given Project site.***
- NOI-3 The construction contractors shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receivers nearest to a given Project site during all future construction under the AGSP.***
- NOI-4 The construction contractors shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise. This shall be accomplished through preparation of a construction routing plan approved by the IVDA and either or both affected cities.***
- NOI-5 No music or electronically reinforced speech from construction workers shall be audible at noise-sensitive properties.***
- NOI-6 During construction, portable noise barriers shall be placed near the noise-producing equipment between the noise source and the receptors for activities where the anticipated noise at the sensitive receptor would exceed 60dBA. The noise barriers may be constructed from construction materials such as from 4 foot by 8-foot sheets of marine plywood (minimum one-inch thickness) or one and one eighth inch (1 1/8") tongue-in-groove sub-floor, backed with three and a half inch thick R 11 fiberglass insulation for sound absorption. Several such panels may be hinged together in order to be self-supporting and to provide a continuous barrier. The temporary, portable noise barriers should at a minimum reduce noise levels at receptor locations below an exterior sound level of 65 dBA and an interior sound level of 45 dBA at the receptor.***
- NOI-7 All construction employees that will be exposed to noise levels greater than 75 dB over an 8-hour period shall be provided with adequate hearing protection devices to ensure no hearing damage will result from construction activities. Areas where noise levels are routinely expected to exceed 80 dBA shall be clearly posted with signs requiring hearing protection be worn.***

NOI-8 *The project proponent for each new Project under the AGSP shall establish a noise complaint/response program that shall include keeping the local community informed of the schedule, duration, and progress of the construction, in order to minimize the public objections to unavoidable noise. Communities where construction is scheduled should be notified in advance of the construction and of the expected construction-related temporary and intermittent noise increases. This can be accomplished by posting signs with phone contacts and information regarding construction schedules a minimum of one week before initiating ground disturbing activities.*

NOI-9 *To the extent feasible (where construction activities can occur concurrently), the noisiest operations shall be scheduled to occur simultaneously in the construction program to avoid prolonged sequential periods of construction activity annoyance.*

Level of Significance After Mitigation: Significant and Unavoidable

4.14.8 Cumulative Impacts

Level of Significance: Significant and Unavoidable

Based on the impact significance criteria described in Section 4.14.7, the Project contributions to the cumulative noise environment are as follows. Construction activities are expected to create temporary and intermittent high-level noise conditions at receivers surrounding the Project site. Since neither the General Plan Noise Elements or Municipal Codes for the Cities of San Bernardino and Highland establish numeric maximum acceptable construction source noise levels at potentially affected receivers, a numerical construction threshold based on the FTA Transit Noise and Vibration Impact Assessment Manual is used for analysis of daytime construction impacts, and impacts thereof were determined to be **less than significant with mitigation incorporated**. Based on the City of San Bernardino vibration standards, the unmitigated Project construction vibration levels will satisfy the 0.7 in/sec RMS threshold at all of the nearby sensitive receiver locations. Therefore, the vibration impacts due to Project construction are considered **less than significant**. Furthermore, the analysis shows that the unmitigated Project-related operational noise levels will satisfy the City of San Bernardino and City of Highland exterior noise level standards at the nearby sensitive receiver locations in the Project study area through the implementation of mitigation identified above (MMs **NOI-2** through **NOI-9**), and therefore operational impacts are considered **less than significant**.

The off-site traffic noise level increase at noise-sensitive land uses is considered a **significant cumulative impact** as a result of Project-related off-site traffic noise level increases. Mitigation is available to reduce the offsite traffic noise impact, but it cannot be effectively enforced on private property. Consequently, the Project's contribution to traffic noise impacts on the surrounding land uses may be cumulatively considerable and significant over the long term.

4.14.9 Unavoidable Adverse Impacts

Based on the evaluation presented in the preceding noise sections, the proposed project will cause significant off-site traffic impacts on several segments of roadway in the City of Highland and San Bernardino below, even with the implementation of mitigation measures (refer to Tables 4.14-15 through 4.14-16):

EXISTING WITH PROJECT TRAFFIC NOISE LEVEL INCREASES

Road	Segment
Tippecanoe Avenue	6th Street to 3rd Street
Tippecanoe Avenue	3rd Street to Mill Street
Tippecanoe Avenue	Mill Street to Orange Show Road /San Bernardino Avenue
Tippecanoe Avenue	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps
Del Rosa Drive	Baseline Street to 9th Street
Del Rosa Drive	9th Street to 6th Street
Sterling Avenue	Base Line to 9th Street
Sterling Avenue	6th Street to 3rd Street
Victoria Avenue	Highland Avenue to Pacific Street
Victoria Avenue	Pacific Street to Base Line
Victoria Avenue	Base Line to 9th Street
Victoria Avenue	9th Street to 6th Street
6th Street	Del Rosa Drive to Sterling Avenue
6th Street	Sterling Avenue to Victoria Avenue
6th Street	Victoria Avenue to Central Avenue
5th Street	I-215 NB Ramps to E Street
5th Street	E Street to Waterman Avenue
5th Street	Waterman Avenue to Tippecanoe Avenue
5th Street	Tippecanoe Avenue to Del Rosa Drive
5th Street	Del Rosa Drive to Sterling Avenue
5th Street	Sterling Avenue to Victoria Avenue
5th Street	Victoria Avenue to Central Avenue
5th Street	Central Avenue to Palm Avenue
5th Street	Palm Avenue to SR-210 EB Ramps
3rd Street	Tippecanoe Avenue to Del Rosa Drive
3rd Street	Del Rosa Drive to Sterling Avenue
3rd Street	Sterling Avenue to Victoria Avenue
3rd Street	Victoria Avenue to Palm Avenue

FUTURE BUILD-OUT 2040 WITH PROJECT TRAFFIC NOISE INCREASES

Road	Segment
Tippecanoe Avenue	6th Street to 3rd Street
Tippecanoe Avenue	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps
Del Rosa Drive	Baseline Street to 9th Street
Del Rosa Drive	9th Street to 6th Street
Sterling Avenue	6th Street to 3rd Street
Victoria Avenue	Highland Avenue to Pacific Street
Victoria Avenue	Pacific Street to Base Line
Victoria Avenue	Base Line to 9th Street
Victoria Avenue	9th Street to 6th Street
6th Street	Del Rosa Drive to Sterling Avenue
6th Street	Sterling Avenue to Victoria Avenue
6th Street	Victoria Avenue to Central Avenue
5th Street	I-215 NB Ramps to E Street
5th Street	E Street to Waterman Avenue
5th Street	Waterman Avenue to Tippecanoe Avenue
5th Street	Tippecanoe Avenue to Del Rosa Drive
5th Street	Del Rosa Drive to Sterling Avenue
5th Street	Sterling Avenue to Victoria Avenue
5th Street	Victoria Avenue to Central Avenue
5th Street	Central Avenue to Palm Avenue
5th Street	Palm Avenue to SR-210 EB Ramps
3rd Street	Tippecanoe Avenue to Del Rosa Drive
3rd Street	Del Rosa Drive to Sterling Avenue
3rd Street	Sterling Avenue to Victoria Avenue

All other project-related noise impacts can be controlled to less than significant noise impact levels with implementation of proposed mitigation. Regardless, for off-site traffic noise impacts, the Project's noise impact is significant and unavoidable.

As the AGSP project area transitions from land uses that are currently sensitive to noise adjacent to “non-sensitive” noise land uses (industrial, manufacturing, warehousing, offices, and related commercial activities) the potential adverse noise impacts will gradually transition to less than significant impacts based on the future noise impacts identified in this Subchapter of the DPEIR. Further, evaluations of site-specific projects can be conducted as projects are proposed and additional site specific evaluations may demonstrate that less than significant construction, operation and traffic noise levels can be achieved in the future.

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4.15 POPULATION AND HOUSING

4.15.1 Introduction

This Subchapter will evaluate the environmental impacts to the issue area of population and housing from implementation of the proposed Airport Gateway Specific Plan (AGSP).

This document is a full-scope Draft Program Environmental Impact Report (DPEIR) for the above-described project and all of the standard issues related to Population and Housing identified in Appendix G of the CEQA Guidelines. Analysis of these issues will determine whether implementation of the AGSP would induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); and, whether implementation of the AGSP would displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

The AGSP project area contains a population estimated at 2,616¹ contained within 760 residential units.^{2,3} The AGSP envisions replacing the existing mix of uses—which presently includes commercial, industrial, residential, vacant land, and public facility uses—within the Planning Area with approximately 9.27 million SF of Mixed Use Business Park uses. To accomplish this land use transition within the AGSP would require development of up to 225 acres of existing occupied acreage and conversion of about 243 acres of vacant land to Mixed Use Business Park uses. However, it should be noted that a number of these residential units within either City are located within parcels that have not been designated for residential use, and are therefore nonconforming uses. This is discussed in detail in the following sections.

These issues pertaining to population and housing will be discussed below as set in the following framework:

- 4.15.1 Introduction
- 4.15.2 Regulatory Setting
- 4.15.3 Environmental Setting
- 4.15.4 Thresholds of Significance
- 4.15.5 Methodology
- 4.15.6 Project Impacts
- 4.15.7 Mitigation Measures
- 4.15.8 Cumulative Impacts
- 4.15.9 Unavoidable Adverse Impacts

The following comments from the public regarding population and housing were received during the NOP comment period or at the Scoping Meeting.

¹ Highland: 748 units x 0.659 = 485 homeowner units x 3.5 persons per household = 1697.5 persons x 0.992 [the homeowner occupancy rate] = 1,684 persons. 748 units x 0.351 = 263 rental units x 3.5 persons per household = 920.5 persons x 0.969 [the rental occupancy rate] = 892 + 1,684 = 2,576 persons within the City of Highland; and, San Bernardino: 12 units x 0.468 = 5.6 homeowner units x 3.5 persons per household = 19.66 persons x 0.992 [the homeowner occupancy rate] = 20 persons. 12 units x 0.532 = 6.38 rental units x 3.5 persons per household = 22.34 persons x 0.969 [the rental occupancy rate] = 22 + 20 = 40 persons within City of San Bernardino

² https://scag.ca.gov/sites/main/files/file-attachments/highland_localprofile.pdf?1606014844

³ https://scag.ca.gov/sites/main/files/file-attachments/sanbernardino_localprofile.pdf?1606014826

NOP Comment Letter #5 PCEJ: The Comment Letter emphasizes concern that the residents and businesses that would be displaced by the AGSP should be involved in the CEQA process.

*Response: The AGSP planning area currently houses an estimated 2,471 persons within an estimated 760 residential units. A conceptual relocation plan for the 760 housing units has been prepared by OPC (provided as Appendix 10 of Volume 2 of this DPEIR); this plan outlines a reasonable manner by which the Cities of San Bernardino and Highland, IVDA, and the San Manuel Band of Mission Indians would facilitate the relocation of housing as developments are proposed and processed. This plan is conceptual in nature and is intended to provide future developers developing land within the AGSP that contains existing occupied housing with an outline of the components required to be included in future relocation plans. The purpose of a relocation plan is ultimately to ensure that persons who reside within housing requiring demolition as a result of a given proposed development who would be displaced by project development are provided resources to facilitate each impacted household's relocation. Per MM **PH-1** the relocation plans would be required to comply with the requirements of the California Relocation Assistance Law, California Government Code Section 7260 et seq, and if federal funding is anticipated, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. MM **PH-2** would require that, where sufficient comparable replacement housing resources does not exist at the time a displacement would occur, the Developer shall be required to complete a second-tier CEQA evaluation documenting displacement impacts, and MM **PH-3** would require that, where the only available means to provide sufficient replacement housing to persons that would be displaced by development under the AGSP is constructing new housing, the Developer or Agency shall be required to complete a second-tier CEQA evaluation. The IVDA and the Cities of Highland and San Bernardino believe that these measures are sufficient to ensure that (a) persons and housing that would be displaced by development under the AGSP are provided adequate relocation resources, and that (b) under the circumstances described under **PH-2** and **PH-3**, further environmental evaluation of the specific impacts related to those circumstance would be required to ensure that the full scope of the impacts are addressed, and where possible, mitigated.*

Scoping Meeting Speaker #2 Stephen: The speaker asks: Where are the majority of the residents are located? In Highland or in San Bernardino? What is the impact of the houses being relocated on the housing crisis?

Response: The majority of the residents are, as discussed in the scoping meeting, in the City of Highland. There are about 2,433 residents in the City of Highland, and about 38 residents in the City of San Bernardino per Table 3-2 of the Project Description. The impact of the residents and houses that would be relocated under the proposed AGSP development can be found under Subchapter 4.15, Population and Housing. Furthermore, this is discussed in detail above under the response to NOP Comment Letter #5 PCEJ, above.

Scoping Meeting Speaker #6 Mauricio: The speaker asks: Are there plans to inform the residents or plans for the displaced residents?

Response: As discussed under CEQA Compliance, Please refer to the response under NOP Comment Letter #5 PCEJ, above, which provides a response to the concerns regarding displaced residents raised in this comment.

The following reference documents were used in preparing this section of the DEIR.

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- Southern California Association of Governments, Local Profile: City of Highland (2019)
- Southern California Association of Governments (SCAG), Local Profile: City of San Bernardino (2019)
- SCAG 6th Cycle Regional Housing Needs Assessment Final Allocation Plan:
<https://scag.ca.gov/sites/main/files/file-attachments/6th-cycle-rhna-final-allocation-plan.pdf?1616462966>
- SCAG 2016 RTP SCS Demographics and Growth Forecast:
<https://scag.ca.gov/sites/main/files/file-attachments/f2016rtpscs.pdf?1606005557>
- SCAG Connect SoCal Demographics and Growth Forecast (2020):
https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_demographics-and-growth-forecast.pdf?1606001579

4.15.2 Regulatory Setting

4.15.2.1 City of Highland

City of Highland Housing Element

The City of Highland General Plan, 2011-2029 Housing Element offers the following Housing Goals, Policies and Programs regarding population and housing:

Housing Element: Goal 1

A preserved and enhanced housing stock within high-quality neighborhoods.

Housing Element: Policy 1.1

Facilitate neighborhood improvement and connect residents to housing rehabilitation programs that offer financial and technical assistance to lower-income households.

Housing Element: Policy 2.1

Encourage housing improvement, preservation, rehabilitation, and the replacement of substandard housing as a means to enhance quality of life in Highland.

Housing Element: Policy 3.1

Support housing and neighborhood quality through the enforcement of building and property maintenance standards, the education of landlords and tenants, and the inspection of properties.

Housing Element: Goal 2

A diverse range and adequate supply of housing types that align with the needs of all current and future Highland households.

Housing Element: Policy 2.1

Bolster the City's affordable housing supply through regulatory tools that encourage the development of and funding for quality lower- and moderate-income housing preservation and development.

Housing Element: Policy 2.2

Provide a transparent, timely, and cost-effective regulatory review process that facilitates housing development opportunities at all income levels.

Housing Element: Policy 2.3

Ensure new residential and mixed-use developments are adequately served by park and recreation, libraries, transportation, public safety, and other public services and facilities.

Housing Element: Policy 2.4

Encourage the development of a range of housing types in targeted areas of the City, such as inventoried vacant residential sites, Planned Development districts, Mixed-Use districts, special Policy Areas identified in the Land Use Element, and areas with access to resources and amenities.

Housing Element: Policy 2.5

Encourage innovation and creativity in housing development through regulations that increase flexibility in the development approval process and allow the use of construction materials and techniques that reduce the cost of housing and its impact on the environment.

Housing Element: Policy 2.6

Provide adequate outreach to residents to preserve the City's factory-built housing stock and protect residents from displacement.

Housing Element: Goal 3

A City with adequate sites and resources appropriate for accommodating a variety of housing types.

Housing Element: Policy 3.1

Establish higher-density nodes with increased housing capacity for a variety of housing types, including housing for lower-income households.

Housing Element: Policy 3.2

Ensure adequate capacity for the development of a range of housing types.

Housing Element: Policy 3.3

Expand the affordable housing stock and provide homeowners with an additional source of income by facilitating the construction of accessory dwelling units.

Housing Element: Goal 4

An affordable housing supply that equitably meets the needs of extremely low-, very low-, low-, and moderate-income households.

Housing Element: Policy 4.1

Improve quality of life for lower- and moderate-income Highland residents by increasing opportunities for the creation of lower-cost owner-occupied housing types and by providing housing assistance through the promotion of homeowner and renter assistance opportunities.

Housing Element: Policy 4.2

Provide regulatory and financial incentives to encourage and facilitate the development of affordable single-family, multifamily, and mixed-use housing.

Housing Element: Policy 4.3

Prohibit housing discrimination and other related discriminatory actions in all aspects affecting the sale or rental of housing based on race, religion, or other protected classifications.

Housing Element: Goal 5

A City with a broad range of housing types to meet the diverse needs of all Highland residents.

Housing Element: Policy 5.1

Provide the regulatory framework necessary to facilitate special needs housing in Highland.

Housing Element: Policy 5.2

Encourage development of accessible housing for all levels of ability through regulatory relief.

Housing Element: Policy 5.3

Create a continuum of care for those experiencing homelessness in Highland through establishing a housing plan for homelessness, including zoning districts allowing emergency shelters, low-barrier navigation centers, transitional housing, and permanent supportive housing.

Housing Element: Policy 5.4

Support innovative public, private, and nonprofit efforts in the development and financing of affordable, special needs housing.

4.15.2.2 City of San Bernardino

City of San Bernardino General Plan Policies

The City of Highland General Plan, 2014-2021 Housing Element offers the following Housing Goals, Policies and Programs regarding population and housing:

Housing: Goal 3.1

Identify adequate sites for a variety of housing type.

Housing: Policy 3.1.1

Provide adequate sites to accommodate the production of a variety of housing types through land use designation, zoning, specific plans, and overlay zones.

Housing: Policy 3.1.2

Encourage the use of density bonus provisions to provide mixed-income housing and maximize the use of vacant and underutilized residential sites.

Housing: Policy 3.1.3

Encourage the development of senior housing and housing for persons with disabilities (including developmental disabilities) in all areas of the City, especially on sites with access to public transportation and community facilities.

Housing: Policy 3.1.4

Direct the production of new housing, including mixed-use and mixed-income projects, in the downtown core and along public transportation corridors.

Housing: Policy 3.1.5

Support the development of residential uses in primarily commercial areas that allow residential or mixed-use development.

Housing: Goal 3.2

Conserve and improve the existing affordable housing stock and revitalize deteriorating neighborhoods.

Housing: Policy 3.2.1

Improve the quality of the existing housing stock through the rehabilitation and improvement of market rate neighborhoods and affordable housing projects.

Housing: Policy 3.2.2

Support code enforcement programs that identify problem areas and assist lower-income homeowners in correcting building code violations.

Housing: Policy 3.2.3

Assist in the maintenance and rehabilitation of rental units whose owners provide affordable housing to lower-income tenants in exchange for long-term affordability agreements.

Housing: Policy 3.2.4

Encourage and facilitate the rehabilitation and reuse of distressed and abandoned properties.

Housing: Policy 3.2.5

Support neighborhood conservation and residential rehabilitation programs that offer financial or technical assistance to owners of lower- and moderate-income housing or distressed properties.

Housing: Policy 3.2.6

Encourage resident involvement in neighborhood improvement program planning to identify needs and implement programs targeted for the area's most in need of rehabilitation.

Housing: Policy 3.2.7

Dedicate resources to eradicate and prevent blighting conditions and maintain standards to safeguard and preserve the City's neighborhoods.

Housing: Goal 3.3

Assist in the provision of housing affordable to lower- and moderate-income households.

Housing: Policy 3.3.1

Increase housing opportunities and choices for lower- (including extremely low-) and moderate-income households.

Housing: Policy 3.3.2

Create and support opportunities to assist first time homebuyers.

Housing: Policy 3.3.3

Support innovative public, private, and not-for-profit efforts for the development and financing of affordable housing.

Housing: Policy 3.3.4

Apply for regional, state, and federal funds for the development or restriction of housing for lower- and moderate-income households.

Housing: Policy 3.3.5

Establish guidelines for the purchase, rehabilitation, and resale of foreclosed properties restricted to lower- and moderate-income households.

Housing: Goal 3.4

Promote equal housing opportunities for all persons in San Bernardino.

Housing: Policy 3.4.1

Provide a regulatory environment in which housing opportunities are available for all persons.

Housing: Policy 3.4.2

Implement housing policies and programs without regard to race, ethnicity, national origin, age, religion, sex, family status, or other arbitrary factors not related to the purpose of the policy or program.

Housing: Policy 3.4.3

Improve quality of life for disabled persons by facilitating relief from regulatory barriers to accessible housing.

Housing: Policy 3.4.4

Encourage senior housing facilities in multi- family and commercial areas of the community, particularly when in proximity to public transportation and supportive commercial, health, and social service facilities.

Housing: Policy 3.4.5

Create a continuum of care for the homeless and those transitioning out of homelessness by facilitating the establishment of emergency shelters, transitional housing, and permanent supportive housing.

Housing: Policy 3.4.6

Encourage the development of market rate and affordable housing with family-oriented and childcare amenities to help meet the needs of large families and single parents.

Housing: Goal 3.5

Reduce the adverse effects of governmental actions on the production, preservation, and conservation of housing, particularly for lower- and moderate-income households.

Housing: Policy 3.5.1

Remove regulatory constraints that inhibit the provision of quality affordable housing.

Housing: Policy 3.5.2

Incentivize and monitor the development, maintenance, and preservation of affordable housing.

Housing: Policy 3.5.3

Ensure that appropriate fees are charged to new residential development to cover expansion costs without unduly increasing the cost of providing housing.

Housing: Policy 3.5.4

Encourage and facilitate the construction, maintenance, and preservation of a variety of housing types adequate to meet a range of household needs.

Housing: Policy 3.5.5

Ensure that adequate utilities and infrastructure are readily available for new or rehabilitated affordable housing projects.

Housing: Goal 3.6

Reduce the amount of energy expended on the construction, conservation, and preservation of housing.

Housing: Policy 3.6.1

Promote infill rehabilitation and new construction projects through increasing housing potential in already developed areas of the community.

Housing: Policy 3.6.2

Facilitate housing development and rehabilitation that conserve natural resources and minimize greenhouse gas emissions.

Housing: Policy 3.6.3

Encourage and enforce green building regulations or incentives that do not serve as constraints to the development or rehabilitation of housing.

Housing: Policy 3.6.4

Focus sustainability efforts on measures and techniques that also assist the occupant in reducing energy costs, thereby reducing housing costs.

4.15.2.3 Regional

Southern California Association of Governments

SCAG⁴ identifies the number and type of housing units that each local jurisdiction should plan to accommodate through the Regional Housing Needs Assessment (RHNA) process. According to SCAG, “the RHNA does not necessarily encourage or promote growth, but rather allows communities to anticipate growth, so that collectively the region and subregion can grow in ways that enhance quality of life, improve access to jobs, promotes transportation mobility, and addresses social equity, fair share housing needs.”

⁴ Southern California Association of Governments includes the counties of Los Angeles, Orange, Riverside, San Bernardino, Ventura, and Imperial.

Regional Housing Needs Assessment (RHNA)

State law requires that jurisdictions provide their fair share of regional housing needs. The State of California Department of Housing and Community Development (HCD) is mandated to determine the state-wide housing need. In cooperation with HCD, local governments and councils of governments (COGs) are charged with making a determination of the existing and projected housing need as a share of the state-wide housing need of their city or region.

The housing construction need is determined for four broad household income categories: very low (households making less than 50 percent of median family income), low (50 to 80 percent of median family income), moderate (80 to 120 percent of median family income), and above moderate (more than 120 percent of median family income). The intent of the future needs allocation by income groups is to relieve the undue concentration of very low and low-income households in a single jurisdiction and to help allocate resources in a fair and equitable manner. Tables 4.15-2 and 4.15-4 outline the regional housing needs for the Cities of Highland and San Bernardino.

4.15.2.4 State

State law requires local communities to plan for enough housing to meet projected growth in California. California planning and zoning law require each city and county to adopt a general plan for future growth (California Government Code [CGC] § 65300). This plan must include a housing element that identifies housing needs for all economic segments and provides opportunities for housing development to meet that need

Article 10.6 of the California Government Code (Sections § 655801–65590) requires each city and county to prepare a Housing Element within its General Plan which is to be submitted (generally every eight years) to the State Housing and Community Development (HCD) Department for certification.

SB 330: The Housing Crisis Act

SB 330 is intended to reduce the time it takes to approve housing developments in California. Under state law, “housing developments” include residential units, mixed-use with a large residential component, and transitional or supportive housing.

The bill is complex and is bound to other laws including the Housing Density Bonus Law (CGC § 65915 – 65918). SB 330 modifies the authority from cities and counties by reducing their review and approval powers over residential development. This shift is reinforced in three ways:

- Freezes the ability of local governments to downzone, adopt new development standards, or change land-use in residential and mixed-use areas if the change results in less-intensive uses;
- Allows developers to request approval of housing developments that exceed density and design controls of the underlying zoning, if the existing zoning is in conflict with the General Plan or a Specific Plan; and,
- Expedites the permitting process for all housing development and limits the list of application materials that cities can review.

To address the state’s housing crisis and help meet California’s housing needs, for a ten year time period SB 330 will facilitate housing construction and protect lower income residents from displacement by:

- Suspending enactment of local downzoning and housing construction moratoriums;

- Requiring timely processing of housing permits following existing local zoning rules;
- Lifting required parking minimums;
- Eliminating certain fees on low income units;
- Postponing requirements for voter approval of zoning, general plan changes;
- Protecting rent controlled or Section 8 units from demolition; and,
- Requiring resettlement benefits and first right of refusal in new units or compensation for rehousing for renters who may be displaced.

Lastly, the bill requires HCD to establish a minimum code for health and safety for buildings that are currently inhabited, but are not meet all current building code standards.

4.15.3 Environmental Setting: Population and Housing

4.15.3.1 City of San Bernardino

Population

The City of San Bernardino is one of twenty-two cities within the County of San Bernardino. According to the U.S. Census Bureau and the Southern California Association of Governments (SCAG), the City of San Bernardino experienced a 13.23 percent population increase between 2000 and 2010 and a 3.04 percent increase between 2010 and 2016 (see **Table 4.15-1**).

**Table 4.15-1
 POPULATION TRENDS – 2000 – 2016: CITY OF SAN BERNARDINO**

City/County	2000	2010	2016	Growth 2000-2010	Growth 2010-2016
San Bernardino	185,401	209,924	216,300	13.23%	3.04%

Source: U.S. Census, SCAG Connect SoCal Demographics and Growth Forecast (2020)

As the largest metropolitan planning organization in the nation, SCAG is responsible for developing long-range transportation plans and a Sustainable Communities Strategy for a vast and varied region, which includes the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura. The centerpiece of that planning work is Connect SoCal, which is the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).⁵ In their recently prepared RTP/SCS, SCAG forecasts that the population of the City of San Bernardino will grow from 216,300 (2016) to 230,500 by 2045, an increase of 6.56% over the next 25 years. The City’s General Plan projects that buildout of the entire Planning Area of the City would accommodate a population of 276,264 persons.

Housing

According to the City of San Bernardino General Plan, in 2005, the City contained 15,107.1 acres of land designated for residential use, with the potential for 82,714 dwelling units⁶ at buildout of the City. According to the City’s General Plan, the number of households within the City in 2000 was 54,482, while according to the SCAG RTP/SCS, the number of households within the City in 2016 was 59,700, reflecting a growth of 9.58% between the years 2000 and 2016. The current

⁵ https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plansummary_0.pdf?1606000989

⁶ Residential buildout is projected to occur at 85% of the maximum density for each land use category.

average household size is 3.5 persons per household with a homeowner vacancy rate of 0.8% and a rental vacancy rate of 3.1% in 2021 according United States (US) Census Bureau Housing Vacancies and Homeownership (CPS/HVS).⁷

SCAG’s Regional Housing Needs Assessment (RHNA) as it pertains to the City of San Bernardino indicates the City’s “fair share” of regional housing need, which is the number of additional housing units that would need to be constructed to accommodate projected growth in the number of households, to replace expected demolitions and conversion of housing units to non-housing uses, and to achieve a future vacancy rate that allows for healthy functioning of the housing market. Table 4.15-2 below depicts the Housing Allocation for the City of San Bernardino.

**Table 4.15-2
 REGIONAL HOUSING NEEDS ASSESSMENT**

City/County	Total	Very Low Income	Low Income	Moderate Income	Above Moderate Income
San Bernardino	8,123	1,415	1,097	1,448	4,163

Employment

The SCAG RTP/SCS indicates that there were 101,300 jobs within the City of San Bernardino in 2016, and anticipates that by 2045, the City of San Bernardino will employ 125,600, a growth of about 24% between 2016 and 2045. The City’s General Plan indicates that, at build out, the land use plan for the City could generate approximately 338,712 jobs using the adjusted intensity factors (FARs), reflecting a growth of 234.36% between 2016 and City buildout.

According to the City of San Bernardino SCAG Local Profile, approximately 73.8% of the City’s residents commute to other places beyond the City of San Bernardino, while 17,213 persons live and work within the City. In 2017, the Education sector was the largest job sector, accounting for 34.9% of total jobs in the city. Other major sectors included Public 14.1%, Leisure 10.7% and Retail 9%. Minor job sectors within the City in 2017 included the following listed from greatest percentage to smallest percentage of the City’s job sectors: Transportation 7.9%, Professional 7.7%, Manufacturing 3.6%, Wholesale 3.2%, Finance 2.7%, Construction 2.6%, Other 2.6%, Information 1%, and Agriculture 0.1%. This can be compared to the City’s jobs by sector in 2007, in which Agriculture (0.8%), Finance (6%), Wholesale (3.7%), Manufacturing (5.1%), Other (3.6%), Professional (7.7%), Retail (10.5%), Construction (4.5%), and Information (1.5%) made up greater percentages of the job market in 2007 than they did in 2017, while Education (25.6%), Leisure (8.8%), and Public (14.0%) made up lesser percentages of the job market in 2007 than they did in 2017. According to the California Employment Development Department (EDD), the County of San Bernardino unemployment rate in July 2022 was 3.9%; the labor force in the City consists of 88,400 persons, and with 84,100 of those persons being employed, the unemployment rate within the City was 4.9% in July of 2022.⁸

⁷ <https://www.census.gov/housing/hvs/index.html>

⁸ <https://www.labormarketinfo.edd.ca.gov/data/labor-force-and-unemployment-for-cities-and-census-areas.html>

4.15.3.2 City of Highland

Population

The City of Highland is one of twenty-two Cities within the County of San Bernardino. According to the U.S. Census Bureau and the Southern California Association of Governments (SCAG), the City of Highland experienced an 18.69 percent population increase between 2000 and 2010 and a 2.06 percent increase between 2010 and 2016 (see **Table 4.15-1**).

**Table 4.15-3
 POPULATION TRENDS – 2000 – 2016: CITY OF HIGHLAND**

City/County	2000	2010	2016	Growth 2000-2010	Growth 2010-2016
Highland	44,741	53,104	54,200	18.69%	2.06%

Source: U.S. Census, SCAG Connect SoCal Demographics and Growth Forecast (2020)

As the largest metropolitan planning organization in the nation, SCAG is responsible for developing long-range transportation plans and a Sustainable Communities Strategy for a vast and varied region, which includes the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura. The centerpiece of that planning work is Connect SoCal, which is the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).⁹ In their recently prepared RTP/SCS, SCAG forecasts that the population of the City of Highland will grow from 54,200 (2016) to 68,900 by 2045, an increase of 27.1% over the next 25 years. The City’s General Plan projects that buildout of the entire Planning Area of the City would accommodate a population of 72,137 persons.

Housing

According to the City of Highland General Plan, in 2006, the City contained 6,395 acres of land designated for residential use, with the potential for 20,910 dwelling units at buildout of the City. According to the City’s General Plan, the number of households within the City in 2012 was 15,685, while according to the SCAG RTP/SCS, the number of households within the City in 2016 was 15,400, reflecting a decrease of 285 households between the years 2012 and 2016; however, the SCAG RTP/SCS anticipates that the number of households will grow by 38.96% to 21,400 by the year 2045. The current average household size is 3.5 persons per household with a homeowner vacancy rate of 0.8% and a rental vacancy rate of 3.1% in 2021 according United States (US) Census Bureau Housing Vacancies and Homeownership (CPS/HVS).¹⁰

SCAG’s Regional Housing Needs Assessment (RHNA) for the City of Highland indicates the City’s “fair share” of regional housing need, which is the number of additional housing units that would need to be constructed to accommodate projected growth in the number of households, to replace expected demolitions and conversion of housing units to non-housing uses, and to achieve a future vacancy rate that allows for healthy functioning of the housing market. Table 4.15-4 below depicts the Housing Allocation for the City of Highland.

⁹ https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plansummary_0.pdf?1606000989

¹⁰ <https://www.census.gov/housing/hvs/index.html>

**Table 4.15-4
 REGIONAL HOUSING NEEDS ASSESSMENT**

City/County	Total	Very Low Income	Low Income	Moderate Income	Above Moderate Income
Highland	2,513	619	409	471	1,014

Employment

The SCAG RTP/SCS indicates that there were 6,900 jobs within the City of Highland in 2016, and anticipates that by 2045, the City of Highland will employ 11,100, a growth of about 60.87% between 2016 and 2045. The City’s General Plan indicates that, at build out, the land use plan for the City could generate approximately 19,492 jobs using the probable intensity factors (FARs) for each nonresidential land use, reflecting a growth of 182.49% between 2016 and City buildout.

According to the City of Highland SCAG Local Profile, approximately 95.3% of the City’s residents commute to other places beyond the City of Highland, while 883 persons live and work within the City. In 2017, the Education sector was the largest job sector, accounting for 24.9% of total jobs in the City. Other major sectors included Retail 14.6%, Professional 12.3%, Leisure 12.2%, and Construction 9.4%. Minor job sectors within the City in 2017 included the following listed from greatest percentage to smallest percentage of the City’s job sectors: Public 5.4%, Other 5.3%, Transportation 5.2%, Finance 3.1%, Manufacturing 2.3%, Wholesale 2.3%, Information 1.5%, and Agriculture 1.4%. This can be compared to the City’s jobs by sector in 2007, in which Manufacturing (4.2%), Finance (5.5%), Transportation (6.7%), Other (6.2%), Professional (12.7%), and Construction (11.9%) made up greater percentages of the job market in 2007 than they did in 2017, while Education (24.9%) remained the same and Retail (13.6%), Wholesale (1.3%), Leisure (9.2%), Information (1.2%), and Agriculture (0%) accounted for lesser percentages of the job market in 2007 than they did in 2017. According to the California Employment Development Department (EDD), the County of San Bernardino unemployment rate in July 2022 was 3.9%; the labor force in the City consists of 25,800 persons, and with 24,800 of those persons being employed, the unemployment rate within the City was 4% in July of 2022.¹¹

4.15.3.3 AGSP Planning Area

The AGSP project area contains a population estimated at 2,616 persons. This estimate was calculated as follows: the project area contains an estimated 760 residential units, and the average household size is 3.5 persons for both Cities, which is equal to 2,616 persons; this figure has then been calculated assuming 64.9% homeownership rate and a 35.1% rental rate utilizing a homeowner vacancy rate of 0.8% and a rental vacancy rate of 3.1% for the population within the City of Highland (748 units are located within the City of Highland) and assuming 46.8% homeownership rate and a 53.2% rental rate utilizing a homeowner vacancy rate of 0.8% and a rental vacancy rate of 3.1% for the population within the City of San Bernardino (12 units are located within the City of San Bernardino), which ultimately equates to 2,616 persons¹² residing within the AGSP.

¹¹ <https://www.labormarketinfo.edd.ca.gov/data/labor-force-and-unemployment-for-cities-and-census-areas.html>

¹² 748 units x 0.659 = 485 homeowner units x 3.5 persons per household = 1697.5 persons x 0.992 [the homeowner occupancy rate] = 1,684 persons. 748 units x 0.351 = 263 rental units x 3.5 persons per household = 920.5 persons x 0.969 [the rental occupancy rate] = 892 + 1,684 = 2,576 persons within the City of Highland and 12 units x 0.468 = 5.6

Importantly, while there are 760 residential units within the AGSP Planning Area, a majority of these uses are nonconforming uses. This is because, in the City of Highland, the adopted General Plan already identified the area adjacent to the Airport as suitable and ideal for Business Park and Industrial use. However, when the General Plan was adopted, many residential units existed within the area identified to transition to non-residential use, and thus remain as non-conforming uses. Please refer to Figure 4.15-1 and Figure 4.15-2, which depict an aerial representation of the AGSP Planning Area with an overlay of the General Plan Land Use designations. Figure 4.15-1 depicts the western portion of the AGSP Planning Area with an overlay of the City of Highland Land Use designations, which is where a majority of the City's nonconforming residential uses are located. As shown in Figure 4.15-1, the entirety of the area in this portion of the specific plan is designated for Business Park or Planned Commercial use. Figure 4.15-2 depicts the eastern portion of the AGSP Planning Area with an overlay of the City of Highland Land Use designations, which is where the only portion of conforming residential uses occurs within the AGSP Planning Area (west of Central Avenue, south of 6th Street, north of 5th Street, and half a block east of Victoria Avenue). As shown in Figure 4.15-1, the remaining area is designated for Industrial and Business Park use, and while many of the existing uses within this area are conforming uses, there are some nonconforming residential uses in this area.

Within the City of San Bernardino, much of the land area is presently vacant (Figure 4.15-3). The City of San Bernardino does not presently contain any conforming residential uses within the AGSP Planning Area, but some nonconforming residential uses exist within the area designated for Industrial Light use north of 3rd Street on either side of Lankershim Avenue.

4.15.3.4 SCAG Region

The SCAG region, the second most populous metropolitan region in the nation, had approximately 18.832 million residents in 2016¹³. The annual average growth rate for the 2000-2016 period was only 0.8 percent. The SCAG region is forecast to grow to 22,504,000 by 2045, by 19.5% in the next 25 years.

The SCAG region employed 7,419,000 persons in the year 2000, and in 2016 employed 8,389,000 persons in 2016, a growth of 13.1% during this period. The SCAG region is forecast to employ 10,049,000 persons in the year 2045, equal to an anticipated growth of 19.8% within the next 25 years.

The SCAG region was home to 5,386,000 households in the year 2000, and in 2016 this number of households grew to 6,012,000, an 11.6% increase during this period. The SCAG region is forecast to be home to 7,633,000 households by 2045, equal to an anticipated growth of 26.96% within the next 25 years.

4.15.4 Significance Threshold Criteria

As stated in the preceding section, the standard issues related to population and housing resources identified in the Standard Environmental Checklist Form provided in Appendix G of the State CEQA Guidelines are analyzed in this DEIR. Accordingly, population, employment, and

homeowner units x 3.5 persons per household = 19.66 persons x 0.992 [the homeowner occupancy rate] = 20 persons. 12 units x 0.532 = 6.38 rental units x 3.5 persons per household = 22.34 persons x 0.969 [the rental occupancy rate] = 22 + 20 = 40 persons within City of San Bernardino

¹³ https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_demographics-and-growth-forecast.pdf?1606001579

housing impacts resulting from the implementation of the proposed AGSP may be considered significant if they would result in the following:

- PH-1 Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- PH-2 Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Based on these significance thresholds and criteria, the proposed AGSP's effects have been categorized as either "no impact," a "less than significant impact," or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

4.15.5 Methodology

The information provided in this Subchapter of the DPEIR was obtained through a mix of library research and field investigation. Most of the population data was obtained by reviewing population and housing data from the cities, the County, SCAG, the State and the 2010 Census Data for the AGSP project area (Census Tracts). The estimates of the number of units were developed based on research of the County Assessor Records, review of high resolution aerial photos of the AGSP project area, and verification in the field. Please note that some residences have been eliminated since the original data were compiled and the residences were replaced by new business/industrial development allowed based on the existing land use designations within each city.

4.15.6 Project Impacts

4.15.6.1 Potential Impacts

- PH-1 Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

The proposed AGSP envisions replacing the existing mix of uses—which presently includes commercial, industrial, residential, vacant land, and public facility uses—within the Planning Area with approximately 9.2 million SF of Mixed Use Business Park. To accomplish this land use transition within the AGSP would require development of up to 225 acres of existing occupied acreage and conversion of about 243 acres¹⁴ of vacant land to Mixed Use Business Park. The AGSP is anticipated to generate up to about 5,097 new jobs within the AGSP Planning Area, versus the existing sources of employment within the Planning Area, which are currently estimated to employ an estimated 487 persons.

The AGSP Planning Area currently houses an estimated 2,616 persons within an estimated 760 residential uses. As part of the AGSP these residential units would eventually be removed and

¹⁴ Vacant land includes some acreage that should be dedicated to ROW and floodway because some Assessor's Parcel Numbers (APNs) are not broken down to exclude ROW and floodway acreage that may be adjacent to an existing use. As such, the actual vacant land to be developed by the project has been determined to be 243 acres, even though Table 3-1 of the Chapter 3, Project Description indicates 290.21 acres are vacant.

replaced with the Mixed Use Business Park uses allowed by the AGSP. As such, the proposed project will be required to relocate the existing population within the Planning Area, thereby resulting in a loss of population specific to this Planning Area, with the ultimate location of the residents of the Planning Area who are relocated presently unknown, though it is likely these residents would relocate locally within the Cities of Highland and San Bernardino. At present, of the residents within the AGSP Planning Area, 40 residents are estimated to be located within the City of San Bernardino, while the majority (2,576 residents) are estimated to reside in the City of Highland. As such, while the proposed project would result in the relocation of an estimated 2,616 persons, this action is not anticipated to result in direct or indirect population growth in the area.

The proposed project also has the potential to generate up to about 4,610 new jobs within the AGSP Planning Area ($5,097 - 487 = 4,610$). While it is unknown whether the new employees will be drawn from the general area, or whether the project would bring new residents to the project area, it is assumed that the project would result in some combination of the above mix of existing and new residents, resulting in a generation of some percentage of new residents of San Bernardino and Highland.

As stated under sections **4.15.3.1** and **4.15.3.2**, within the City of San Bernardino the current unemployment rate is 4.9%, or 4,300 persons. Within the City of Highland, the current unemployment rate is 4%, equal to 1,000 persons. Therefore, at present there are about 5,300 persons within the labor force who are seeking work within the two cities. Given the above, implementation of the AGSP is anticipated to draw, at least partially, from the existing populations within the Cities of Highland and San Bernardino for future employees of businesses developed within the AGSP.

This analysis, however, assumes that the creation of the AGSP would result in the employment of up to and estimated 5,097 persons (an estimated 487 that are already employed within the project area), which, in turn, could result in an increase in population within the City by a maximum of about 4,610 persons over the 20-year time period in which the development proposed as part of the AGSP occurs. As stated under section **4.15.3.1**, SCAG's RTP/SCS forecasts that the population of the City of San Bernardino will grow from 216,300 (2016) to 230,500 by 2045, while the City's General Plan projects that buildout of the entire Planning Area of the City would accommodate a population of 276,264 persons. Additionally, under section **4.15.3.2**, SCAG's RTP/SCS forecasts that the population of the City of Highland will grow from 54,200 (2016) to 68,900 by 2045, while the City's General Plan projects that buildout of the entire Planning Area of the City would accommodate a population of 72,137 persons.

As such, it is assumed that, by 2045, the populations of the Cities of Highland and San Bernardino combined would be about 299,400 persons, and the maximum potential growth in population from employment related to the proposed project would result in approximately 1.88% increase over the 2016 population ($[4,610 \div 270,500] \times 100 = 1.88\%$), and would make up approximately 1.7% of the anticipated 2045 population ($[4,610 \div 299,400] \times 100 = 1.54\%$). Additionally, the population is anticipated to increase by 28,900 persons over the next 25 years, of which the proposed project could contribute up to 4,610 new residents to this anticipated increase over the course of the next 25 years in which the AGSP Planning Area is proposed to be developed. Furthermore, the combined build-out populations of the Cities of Highland and San Bernardino anticipate that the population would increase by a combined 77,901 persons between the 2016 populations and buildout for each City. Given the 77,901-person gap between the 2016 population and the projected build out populations for each City, it is not anticipated that the whole of the number of anticipated employees generated by implementation of the AGSP would be new residents of the

Cities of Highland and San Bernardino. This forecast is based on the fact that given the available labor force/unemployment rate within the Cities of Highland and San Bernardino, the proposed project may induce population growth, but the proposed project will not induce substantial population growth that exceeds either local or regional projections over the 20 year period. Therefore, impacts under this issue are considered less than significant. No mitigation is required.

Mitigation Measures: None Required

Level of Significance: Less Than Significant Impact

PH-2 Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The AGSP project area has been designated for light industrial uses since the 2005/2006 General Plans were adopted by San Bernardino and Highland, respectively. However, growth/transition of the project area has been slow to occur due to a variety of factors. Regardless as stated above, the proposed AGSP envisions replacing the existing mix of uses—which presently includes commercial, industrial, residential, vacant land, and public facility uses—within the Planning Area with approximately 9.27 million SF of Mixed Use Business Park uses. In order to accomplish this, the existing uses are forecast to gradually transition to the proposed Mixed Use Business Park uses (as defined in the AGSP) as development proposals are put forth within the proposed AGSP Planning Area. The horizon for buildout of the AGSP is anticipated to be about 20 years, with development of the whole of the AGSP anticipated by about 2040.

The AGSP Planning Area currently houses an estimated 2,616 persons within an estimated 760 residential uses. The population within the Planning Area was calculated assuming a household size of 3.5, and utilizing a 64.9% homeownership rate and a 35.1% rental rate utilizing a homeowner vacancy rate of 0.8% and a rental vacancy rate of 3.1% for the population within the City of Highland (748 units are located within the City of Highland) and assuming 46.8% homeownership rate and a 53.2% rental rate utilizing a homeowner vacancy rate of 0.8% and a rental vacancy rate of 3.1% for the population within the City of San Bernardino. At present, of the residents within the AGSP Planning Area, 40 residents are located within the City of San Bernardino, while the majority (2,576 residents) reside in the City of Highland. As part of the AGSP these residential units would be removed and replaced with the Mixed Use Business Park uses proposed by the AGSP, as discussed above. As such, the proposed project would displace existing persons within existing housing that is located within the AGSP Planning Area.

As part of this project, a conceptual relocation plan for the conforming residential housing units has been prepared by OPC (provided as Appendix 10 of Volume 2 of this DPEIR); this plan outlines a reasonable manner by which the Cities of San Bernardino and Highland, IVDA, and the San Manuel Band of Mission Indians would facilitate the relocation of housing as developments are proposed. This plan is conceptual in nature and is intended to provide future developers that develop land within the AGSP containing existing occupied housing with an outline of the components required to be included in future relocation plans. The purpose of a relocation plan is ultimately to ensure that persons who reside within housing requiring removal (demolition) as a result of a given proposed development who would be displaced by project development are provided resources to facilitate each impacted household's relocation.

As stated above, implementation of the AGSP would result in development that has the potential to displace existing persons and housing within the AGSP Planning Area. Please note that this

transition can occur under the existing land use designations, and part of the purpose of the AGSP is to provide the infrastructure and planning mechanisms required to make the transitions orderly and with a less than significant impact. Thus, in order to minimize impacts related to the displacement of persons and housing as part of future AGSP development, the Model/Conceptual Relocation Plan Mitigation prepared by OPC (provided as Appendix 10 of Volume 2 of this DPEIR) shall be implemented to ensure that future developers provide adequate relocation resources to affected persons or households that currently occupy the AGSP project area.

PH-1: *For any development actions that may cause displacement of conforming residential occupants (relevant to both tenants and homeowners alike), the Developer shall prepare a relocation plan that complies with the requirements of the California Relocation Assistance Law, California Government Code Section 7260 et seq, and if federal funding is anticipated, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. As a component of the relocation plan, the Developer shall provide an explanation of the relocation requirements that they are complying with, and a detailed relocation plan consistent with one of the above-listed relocation guidelines to include:*

- 1. Introduction.*
- 2. Project description.*
- 3. Assessment of the relocation needs of persons subject to displacement.*
- 4. Assessment of available replacement housing units within proximity to the Project site.*
- 5. Description of the relocation program and guidelines to be followed; and*
- 6. Administrative Provisions to include:*
 - a. Informational Statement and Notices to be provided.*
 - b. Description of any citizen participation or outreach efforts.*
 - c. Grievance procedures.*
 - d. Project schedule or timelines of any proposed displacement*
 - e. Estimated budget to provide relocation benefits in accordance with the identified relocation program requirements.*

A sample outline of the components of the relocation plan to be prepared, incorporating the above, will include but not be limited to the outline, methodology, and information contained in the Model/Conceptual Relocation Plan Mitigation prepared by OPC (provided as Appendix 10 of Volume 2 of this DPEIR).

Before proceeding with and causing displacement of individuals and households, general notice of the relocation plan shall be provided, and notice shall be designed to reach the occupants of all properties to be displaced, and shall be provided 30 days prior to submission to the Agency for approval.

While the conceptual relocation is comprehensive, there may be instances where the circumstances at the time a development under the AGSP is proposed in which comparable replacement housing resources do not exist. Under these circumstances, the following mitigation measure requiring a second-tier CEQA evaluation would be implemented:

PH-2: *Where sufficient comparable replacement housing resources do not exist at the time a displacement is proposed to occur, the Developer shall be required to complete a second-tier CEQA evaluation documenting displacement impacts.*

Additionally, while the conceptual relocation is comprehensive, there may be instances where the circumstances at the time a development under the AGSP is proposed in which the only available means to provide sufficient replacement housing to persons that would be displaced by development under the AGSP is constructing new housing. Under these circumstances, the following mitigation measure requiring a second-tier CEQA evaluation would be implemented:

PH-3: *Where the only available means to provide sufficient replacement housing to persons that would be displaced by development under the AGSP is constructing new housing, the Developer or Agency shall be required to complete a second-tier CEQA evaluation.*

Level of Significance: Less Than Significant With Mitigation Incorporated

A significant impact related to displacement of persons or housing would occur if substantial persons or housing are displaced and/or where construction of replacement housing is required. Given that the relocation plan required by MM **PH-1** would require that “where sufficient comparable replacement housing resources does not exist,” the developer must “provide a written determination that the necessary resources will be available before displacement could occur,” no development under the AGSP would result in substantial displacement of housing or persons without documented provision of replacement housing, except where sufficient comparable replacement housing resources do not exist at the time a displacement would occur, in which case MM **PH-2** would ensure that the Developer complete a second-tier CEQA evaluation documenting displacement impacts. Furthermore, MM **PH-3** would also require a second-tier CEQA evaluation applicable to circumstances in which construction of new housing is the only means by which to ensure adequate replacement housing exists for persons that would be displaced as a result of development under the AGSP. As such, the provision of adequate resources to facilitate relocation of persons that would be displaced by the AGSP through the implementation of MM **PH-1**, and the minimization of the potential for circumstances related to insufficient replacement housing resulting in a significant impact through implementation of MMs **PH-2** and **PH-3** would minimize the potential for a significant adverse impact to occur related to the displacement of existing people or housing necessitating replacement housing elsewhere.

4.15.7 Mitigation Measures

As discussed in detail in the preceding analysis, the following mitigation measures will be implemented where required or appropriate by the two cities and developers.

PH-1: *For any development actions that may cause displacement of conforming residential occupants (relevant to both tenants and homeowners alike), the Developer shall prepare a relocation plan that complies with the requirements of the California Relocation Assistance Law, California Government Code Section 7260 et seq, and if federal funding is anticipated, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. As a component of the relocation plan, the Developer shall provide an explanation of the relocation requirements that they are complying with, and a detailed relocation plan consistent with one of the above-listed relocation guidelines to include:*

- 1. Introduction.*
- 2. Project description.*
- 3. Assessment of the relocation needs of persons subject to displacement.*
- 4. Assessment of available replacement housing units within proximity to the Project site.*

5. **Description of the relocation program and guidelines to be followed; and**
6. **Administrative Provisions to include:**
 - a. **Informational Statement and Notices to be provided.**
 - b. **Description of any citizen participation or outreach efforts.**
 - c. **Grievance procedures.**
 - d. **Project schedule or timelines of any proposed displacement**
 - e. **Estimated budget to provide relocation benefits in accordance with the identified relocation program requirements.**

A sample outline of the components of the relocation plan to be prepared, incorporating the above, will include but not be limited to the outline, methodology, and information contained in the Model/Conceptual Relocation Plan Mitigation prepared by OPC (provided as Appendix 10 of Volume 2 of this DPEIR).

Before proceeding with and causing displacement of individuals and households, general notice of the relocation plan shall be provided, and notice shall be designed to reach the occupants of all properties to be displaced, and shall be provided 30 days prior to submission to the Agency for approval.

PH-2: Where sufficient comparable replacement housing resources do not exist at the time a displacement is proposed to occur, the Developer shall be required to complete a second-tier CEQA evaluation documenting displacement impacts.

PH-3: Where the only available means to provide sufficient replacement housing to persons that would be displaced by development under the AGSP is constructing new housing, the Developer or Agency shall be required to complete a second-tier CEQA evaluation.

4.15.8 Cumulative Impacts

Level of Significance: Less Than Significant With Mitigation Incorporated

Cumulative impacts in the context of population, housing, and employment are analyzed in terms of consistency with SCAG growth assumptions for San Bernardino County. Buildout of the AGSP would contribute to regional growth with respect to population, housing, and employment, and impacts thereof are discussed in terms of local projections under Section 4.15.6, above. In the context of region, SCAG projects that the population of San Bernardino County is anticipated to grow to 2,815,000 persons by 2045, with the 2020 population at about 2,141,000¹⁵. SCAG projects that by 2045, employment within the County will total 1,064,000 jobs, growing from 834,000 jobs in 2020. Additionally, SCAG projects that the number of households residing in the County would be 875,000 by 2045, growing from 668,000 in 2020.

Employment

The proposed AGSP would contribute to cumulative employment within the region through the provision of 5,097 (4,610 new jobs) jobs at buildout of the specific plan. This would account for approximately 2.2% of the anticipated job growth within the County between 2020 and 2045. As such, the proposed AGSP's contribution to regional employment would be beneficial to meeting

¹⁵ https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_demographics-and-growth-forecast.pdf?1606001579

long-term employment demand as a result of regional population growth, and therefore cumulative employment impacts would be less than significant.

Population

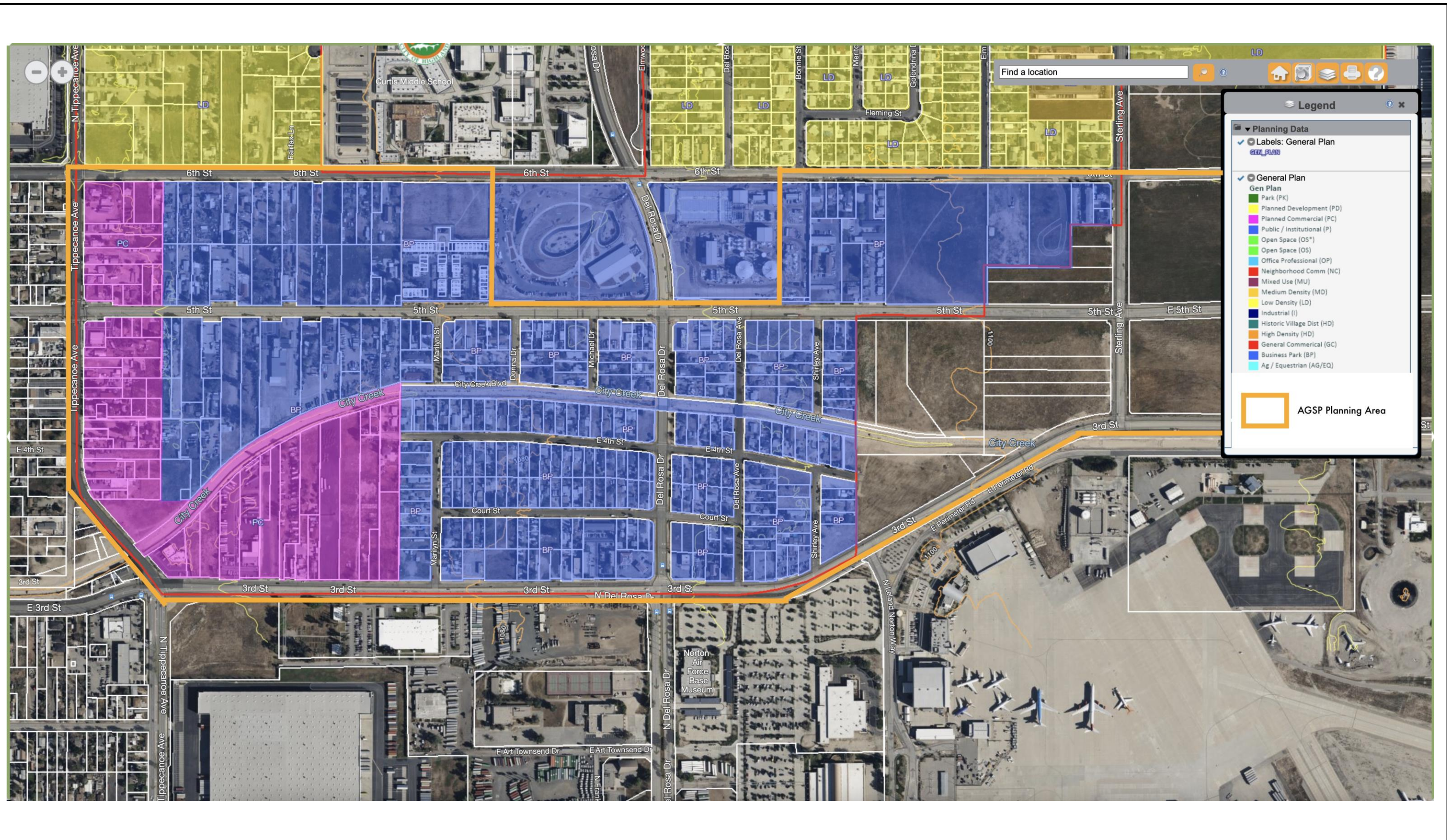
This EIR assumes that the creation of the AGSP would result in the employment of up to 5,097 persons, which, in turn, could result in an increase in population within the area by about 5,097 persons over the time period in which the development proposed as part of the AGSP occurs. In the context of the regional population, the maximum potential growth in population from employment related to the proposed project would result in approximately 0.24% increase over the 2020 County population ($[4,610 \div 2,141,000] \times 100 = 0.22\%$), and would make up approximately 0.18% of the anticipated 2045 County population ($[4,610 \div 2,815,000] \times 100 = 0.16\%$). As such, given that the proposed AGSP would result a minimal less than one percent increase in regional population between 2020 and 2045, and that this increase falls well within the forecast population growth for the region within this period, cumulative population impacts attributable to the AGSP would be less than significant.

Households

The proposed AGSP would result in the displacement of 760 households located within the AGSP Planning Area to be relocated within the local or regional area. In the regional context, the proposed project would result in the elimination of 760 dwelling units, or a decrease of about 0.37% when compared to the 207,000 anticipated household growth within the County between 2020 and 2045. Given that the proposed AGSP would not enable displacement of households located within the Planning Area without adequate relocation resources for conforming uses, or without the completion of a second-tier CEQA documentation analyzing the impacts on displaced households or persons, and given the minimal less than one percent decrease in cumulative forecasted dwelling units between 2020 and 2045 as a result of AGSP implementation, the project's cumulative impacts to housing are less than significant with implementation of mitigation measures **PH-1** through **PH-3**.

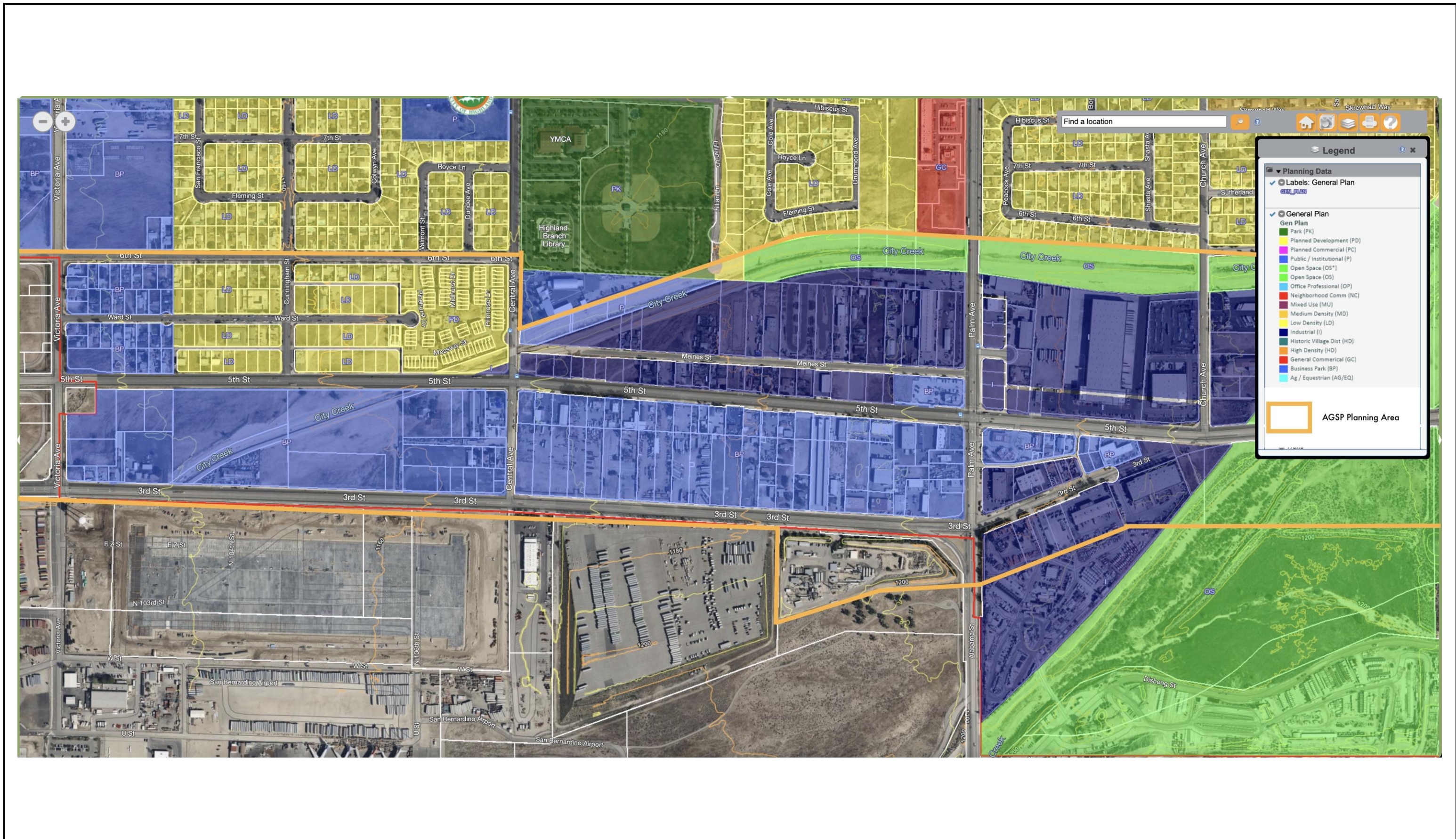
4.15.6 Unavoidable Adverse Impacts

Population, employment, and housing impacts associated with implementation of the proposed AGSP would be less than significant by adherence to and/or compliance with goals and policies in the City of Highland and San Bernardino General Plans, as well as through compliance with MMs **PH-1** through **PH-3**. No significant unavoidable population, employment, and housing impacts would occur as a result of buildout of the proposed AGSP.



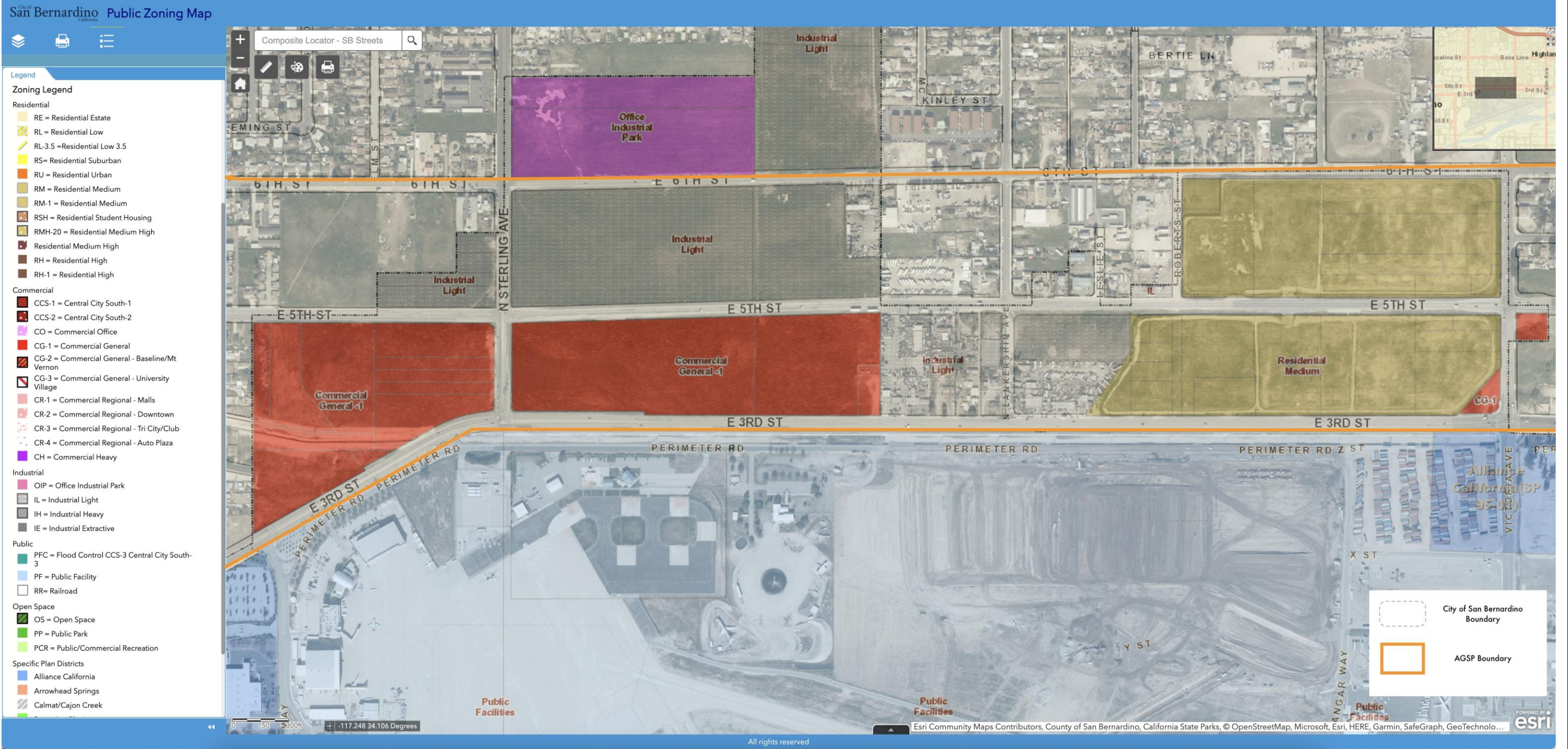
SOURCE: City of Highland

FIGURE 4.15-1



SOURCE: City of Highland

FIGURE 4.15-2



SOURCE: City of San Bernardino

FIGURE 4.15-3

4.16 PUBLIC SERVICES

4.16.1 Introduction

This section identifies police and fire protection services, as well as school and library, and other public services within the Cities of Highland and San Bernardino that serve the AGSP planning area, and provides an analysis of potential impacts associated with implementation of the AGSP. Public services consist of the following topics/issues that are provided by local government to meet a community's needs for safety and education: Fire Protection and Emergency Response Services; Sheriff Law Enforcement Services; School/Education Services; Library, Cultural, and Other Public Services; and Health Services. Of the above services, all but Health Services are typically provided solely by local government. In contrast, some Health Services are provided/supported by local government, but most Health Services are available through private businesses (doctors, hospitals, etc.). Therefore, health services will not be further analyzed in this document as it is assumed that service and demand are balanced through the commercial markets. Each of the other referenced Public Service issues is addressed in a separate discussion/evaluation below.

This document is a full-scope DEIR for the above-described project and all of the standard issues related to public service resources identified in Appendix G of the CEQA Guidelines are analyzed in this DEIR. The topics are organized in a different manner in this Subchapter compared to the preceding Subchapters. Also, this Subchapter does not include a discussion of Parks; the discussion of Parks can be found in Subchapter 4.17, Recreation and Parks, and is therefore omitted from this Chapter.

- Fire Services
- Police Protection
- Schools
- Library, Cultural and Other Public Services

None of the comment letters raised the issue of public services as an issue of concern. Two of the commenters raised concerns that are tangentially associated with Police Protection services for the AGSP project area. Scoping Meeting Speaker Number 7 (Yassi) indicated concerns with about truck safety along truck routes and having trucks that can carry drayage/cargo near commercial and residential properties. The speaker identified additional concerns about obscenities on cargo trucks. Scoping Meeting Speaker Number 8 (Sheena) stated that trucks blast through red lights every day in the general project area.

4.16.2 Fire Protection

This section identifies fire protection services within the AGSP planning area and provides an analysis of potential impacts associated with the buildout of the proposed AGSP. Information in this section is based on information in the City of Highland General Plan and City of San Bernardino General Plan Public Services and Facilities Element, and information provided by the County of San Bernardino Fire Department and City of Highland Fire Department.

The following reference documents were used in preparing this section of the DEIR:

- City of San Bernardino, November 1, 2005. *General Plan*
- City of Highland, March 2006. *General Plan*
- California Building Standards Commission, *2019 California Fire Code*

- National Fire Protection Association, *NFPA Code 1710 Implementation Guide*, Current Edition 2020
- San Bernardino County Fire Annual Report (July 2018 - June 2019):
<https://www.sbctfire.org/Portals/58/Documents/About/2018-19AnnualReport.pdf>
- San Bernardino County Fire Website, About SBC Fire. Accessed 12/22/20 at:
<https://www.sbctfire.org/Portals/58/Documents/About/2018-19AnnualReport.pdf>

4.16.2.1 Environmental Setting: Fire Protection

San Bernardino County Fire Department

The San Bernardino County Fire Protection District is a community-based, all hazard emergency services provider. The San Bernardino County Fire Department (SBCFD) provides fire and emergency response services to more than 60 communities/cities and all unincorporated areas of the County. SBCFD's Office of Emergency Services (OES) serves as the Operational Area Lead Agency, coordinating the provision of emergency services with 24 cities and towns in San Bernardino County.¹ SBCFD has 48 professionally staffed fire stations within its service area, 9 paid/volunteer fire station, and covers 19,200 square miles.² There are 1,071 County fire personnel and 683 fire suppression personnel.

In the vicinity of the AGSP, there are three SBCFD stations: Stations 233, located at the San Bernardino International Airport to the south of the planning area; Station 221, located about a mile to the west of the planning area at 200 E 3rd Street, and Station 226, located about two miles to the north of the project site at 1920 Del Rosa Ave.

City of Highland Fire Department

The California Department of Forestry and Fire Protection (Cal Fire) provides fire protection and emergency medical services to the Highland community through a cooperative agreement that provides for Cal Fire employees to staff City-owned facilities and apparatus. The City has three fire stations: Station 541 located at 26974 Base Line; Station 542 located at 29507 Base Line; and Station 543 is located at 7469 Sterling Avenue. Station 541 is located about one mile north of the planning area, while Station 543 is located less than one-half mile north of the planning area.

4.16.2.2 Regulatory Setting

City of Highland Public Services and Facilities Element

The City of Highland General Plan offers the following Public Services and Facilities Goals and Policies regarding fire protection services:

Public Services and Facilities Element: Goal 4.8

Ensure the provision of adequate staffing, equipment and facilities to support effective fire protection and emergency medical services that keep pace with growth.

¹ <https://www.sbctfire.org/about/AboutSBCFire.aspx>

² San Bernardino County Fire Annual Report (July 2018-June 2019):
<https://www.sbctfire.org/Portals/58/Documents/About/2018-19AnnualReport.pdf>

Public Services and Facilities Element: Policy 1

Work with the fire department to ensure that response time standards and a high level of service are maintained.

Public Services and Facilities Element: Policy 2

Ensure the City has adequate fire training facilities, equipment and programs for firefighters and inspection personnel, and education programs for the general public.

Public Services and Facilities Element: Policy 3

Coordinate and cooperate with the East Valley Water District to maintain and/or upgrade water facilities to ensure adequate water supply is available for fire suppression operations.

Public Services and Facilities Element: Policy 4

Ensure the availability of adequate fire flow prior to the recordation of residential tracts or parcel maps and prior to the issuance of commercial building permits by requiring the testing of all fire hydrants in the vicinity of the project at the applicant's expense. In the absence of adequate flow, require either the installation of on-site fire protection devices or improvements that upgrade the area's water system to accommodate an adequate flow.

Public Services and Facilities Element: Policy 5

Ensure that development in Fire Hazard Zones comply with adequate fire safety standards (e.g., fuel modification zones, perimeter roads, greenbelts, etc.).

City of San Bernardino Public Facilities and Services

The City of San Bernardino General Plan offers the following Public Facilities and Services Goals and Policies regarding fire protection services:

Public Facilities and Services Element: Goal 7.2

Protect the residents and structures of San Bernardino from the hazards of fire.

Public Facilities and Services Element: Policy 7.2.1

Assure that adequate facilities and fire service personnel are maintained by periodically evaluating population growth, response time, and fire hazards in the City. (A-3 and PFS-2)

Public Facilities and Services Element: Policy 7.2.2

Assess the effects of increases in development density and related traffic congestion on the provision of adequate facilities and services ensuring that new development will maintain fire protection services of acceptable levels. (PFS-2)

Public Facilities and Services Element: Policy 7.2.3

Establish a program whereby new development projects are assessed a pro rata fee to pay for additional fire service protection to that development. (PFS-3)

Public Facilities and Services Element: Policy 7.2.4

Coordinate inter-agency fire service protection agreements with County U.S. Forest Service, and other fire protection agencies. (PFS-5)

Public Facilities and Services Element: Policy 7.2.5

Maintain an "ISO" fire rating of at least class 3.

Public Facilities and Services Element: Policy 7.2.6

Require that all buildings subject to City jurisdiction adhere to fire safety codes. (LU-1)

Public Facilities and Services Element: Policy 7.2.7

Develop and implement a comprehensive high-rise fire safety program.

Public Facilities and Services Element: Policy 7.2.8

Promote public education regarding fire safety to address issues such as storage of flammable material and other fire hazards. (PFS-1 and PFS-4)

Public Facilities and Services Element: Policy 7.2.9

Continue uniform reporting of all fire emergency data including type and cause of fire alarm response time and damage/injury data. (PFS-2)

State

The California Department of Forestry and Fire Protection (CAL FIRE) is responsible for fire protection within State Responsibility Areas (SRAs), including 31 million acres throughout California. In most cases, SRAs are protected directly by CAL FIRE; the Department provides varied emergency services in 36 of the State's 58 counties via contracts with local governments. However, in some counties, such as San Bernardino County, fire protection within the SRA is provided by the County under contract with CAL FIRE (CAL FIRE, 2016). However, depending on the scale and circumstances of the fire, CAL FIRE responds with firefighting resources to assist the County (CAL FIRE, 2012).

4.16.2.3 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:

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 fire protection services.

4.16.2.4 Potential Impacts

FP-1 Would the Project 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 fire protection services?

As of July 1, 2016, the San Bernardino County Fire District (SBCFD) provides fire protection services to the City of San Bernardino, while the Highland Fire Department, supported by the California Department of Forestry and Fire Protection (Cal Fire), serves the City of Highland. The AGSP planning area will be served by both fire departments depending on the area within which an incident occurs. The AGSP would enable development of approximately 9.27 million square feet (SF) of Mixed Use Business Park uses. Buildout of the development envisioned within the AGSP planning area will generate additional demand for existing fire and emergency services. New developments associated with the buildout of the proposed AGSP would be required to comply with all current applicable current fire code and ordinance requirements for construction, access, water mains, fire flow, and hydrants. Individual projects in the future would be reviewed by the pertinent fire agency with jurisdiction over a given project site to determine the specific fire requirements applicable to a future specific development and to ensure compliance with these requirements.

This would ensure that new developments would not reduce the staffing, response times, or existing service levels within each City. Furthermore, both the Cities of Highland and San Bernardino impose Development Impact Fees (DIF) on new development, which would contribute

to the funding of expanded facilities, vehicles and equipment by SBCFD and the Highland Fire Department should they be required as development occurs in the future. Additionally, the Cities of San Bernardino and Highland's General Funds cover operational expenses, and the proposed project will contribute both property taxes and possibly sales taxes to the general fund to offset this incremental demand for fire protection services. The amount contributed would increase the amount collected as vacant parcels are developed and existing parcels are improved within the AGSP planning area and as redevelopment within the planning area occurs. Thus, as individual developments are reviewed and constructed, additional resources can be identified and funded and would be available to ensure adequate funding in the future for additional urban fire protection services. Therefore, implementation of the proposed AGSP would result in a less than significant impact to fire protection services.

Two issues, related to truck traffic safety and trailer graffiti, were raised in the comments on the NOP or at the AGSP DPEIR Scoping Meeting. The comment regarding safety identified current truck traffic failure to obey traffic regulations under existing conditions and concerns that this situation could deteriorate under potential higher truck volumes within the AGSP in the future. Several actions can help address this concern. First, as the AGSP develops, truck traffic will gradually be separated from residential or automobile traffic as residential uses will be removed from the AGSP. Specifically, large truck traffic will be shifted from 6th Street to 5th and 3rd Streets. Second, if violations or conflicts persist, the residents can petition either City Council to initiate stringent enforcement of traffic laws in an area of concern. Third, the local residents can petition the owners of the company generating the truck traffic to exercise control over the trucks servicing a facility. Finally, regarding graffiti, a city can impose a condition of approval that will require a company to ensure that trucks servicing its facility do not allow offensive graffiti to remain on the trucks. Enforcement would be through reporting failure to comply to a city's code enforcement division.

Mitigation Measures: None Required

Level of Significance: Less Than Significant Impact

4.16.2.5 Cumulative Impacts

Development associated with implementation of the proposed AGSP would result in additional demands on existing fire services and equipment. New development and redevelopment of existing parcels associated with the proposed AGSP would be required to comply with all applicable fire code and ordinance requirements for construction, access, water mains, fire flow, and hydrants and individual projects would be reviewed by the SBCFD and the Highland Fire Department to determine the specific fire requirements applicable to a specific development and to ensure compliance with these requirements. Additionally, future development would be reviewed by each City and this would be required to meet the City of San Bernardino or City of Highland General Plan goals and policies that enforce requirements pertaining to ensuring adequate fire protection is available within each City. It also ensures that development will meet applicable standards to further minimize risk pertaining to fire hazards. Funding for expanded fire protection services is assessed as development within the City occurs and over the long term through payment of sales and property taxes. Funding for these services is assessed through DIF on new developments within the Cities of Highland and San Bernardino and through collection of property taxes as contributions to the City of San Bernardino or City of Highland General Funds. Collection of these funds would ensure that new development would not reduce the appropriate ratio of staffing, response times, or existing service levels within the AGSP planning area.

Therefore, implementation of the proposed General Plan would result in less than significant impacts to fire protection and emergency services. As such, implementation of the proposed AGSP would not result in cumulatively considerable fire protection impacts.

4.16.2.6 Unavoidable Significant Adverse Impacts

The foregoing evaluation demonstrates that though implementation of the AGSP may cause a change or increase in demand for fire and emergency services within the AGSP planning area, this increase would not cause an unavoidable significant adverse impact to Fire Protection and Emergency Response through implementation of the AGSP. This is because both cities have established funding mechanisms to ensure development will not occur faster than fire and emergency service capacity are also expanded. No significant unavoidable fire protection and emergency service impacts would occur as a result of buildout of the proposed AGSP based on each City's existing mandatory requirements.

4.16.3 Police Protection

This section identifies police protection services within the AGSP planning area and provides an analysis of potential impacts associated with the buildout of the proposed AGSP. Information in this section is based on information in the City of Highland General Plan and City of San Bernardino General Plan Public Services and Facilities Element, and information provided by the San Bernardino Police Department and San Bernardino County Sheriff's Department

The following reference documents were used in preparing this section of the DEIR:

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- City of Highland Development Impact Fees as of 4/13/20. Accessed 12/22/20 at: <https://www.cityofhighland.org/DocumentCenter/View/752/Development-Impact-Fees-DIF-4-13-20-PDF>
- San Bernardino City Police Department Website, About SBPD. Accessed 12/22/20 at: http://www.sbcity.org/cityhall/police_department/about_sbpd/about_sbpd/default.asp
- San Bernardino County Sheriff Department Website, City of Highland Patrol Station. Accessed 12/20/20 at: <https://wp.sbcounty.gov/sheriff/patrol-stations/highland/>

4.16.3.1 Environmental Setting: Police Protection

San Bernardino Police Department

Police services are provided by the City Police Department within the City limits. The planning area is served by a main police station and six community service offices that serve five designated geographical patrol districts. Police services are provided by the City Police Department within the City limits and the County Sheriff in unincorporated areas. The San Bernardino Police Department maintains a ratio of approximately one sworn officer for every 820 residents; 255 sworn officers make up the sworn component of the Department. Another 150 civilian support staff members do a variety of service-orientated tasks so that sworn personnel can focus on law enforcement related duties.³

³ http://www.sbcity.org/cityhall/police_department/about_sbpd/about_sbpd/default.asp

The San Bernardino Police Department is located at 710 North D Street, San Bernardino, CA 92401, which is about 2 miles west of the AGSP planning area.

San Bernardino County Sheriff's Department

The San Bernardino County Sheriff Department provides police protection services to the Highland community. The Sheriff's Department has one patrol station in the City of Highland, located at 26985 East Baseline, Highland, California 92346. The Sheriff Station is located a little more than one mile north of the AGSP planning area. According to the Sheriff Department's website, Reserve Deputy Sheriff's benefit the Highland Station by volunteering their time working patrol and supplementing the patrol staff.⁴ Additionally, the Sheriff Department's Citizen Volunteers also provide extra-patrol to local residents and businesses while assisting patrol personnel at the scenes of major traffic collisions, crime scene perimeters, and assisting at many local community events. The station is currently staffed with 32 sworn officers (which includes 1 Captain, 1 Lieutenant, 5 Sergeants, 3 Detectives and 22 patrol deputies), as well as 9 non-sworn civilian employees (which includes 1 secretary, 4 clerical personnel, 3 Sheriff's Service Specialists and 1 Motor Pool Assistant). The Highland Station is the busiest station within the San Bernardino County Sheriff's Department in terms of calls for service, arrests per deputy and reports per deputy. As part of the Sheriff's contract, the station, its personnel, and the community have access to an impressive array of specialty resources offered by the Sheriff's Department these include: Narcotics, SWAT, Arson-Bomb, Crimes against Children, Homicide, Scientific Investigations/Crime Lab, Aviation, Volunteer Forces/Search and Rescue, Major Accident Investigation Team and more.

4.16.3.2 Regulatory Setting

City of Highland Public Services and Facilities Element

The City of Highland General Plan offers the following Public Services and Facilities Goals and Policies regarding police protection services:

Public Services and Facilities Element: Goal 4.7

Ensure the provision of adequate law enforcement and police protection services and facilities.

Public Services and Facilities Element: Policy 1

Ensure that police services, response times, equipment, and the number of police personnel keep pace with growth and the changing needs of the community.

Public Services and Facilities Element: Policy 2

Maintain and expand crime prevention and other public education programs.

Public Services and Facilities Element: Policy 3

Encourage the use of urban design strategies to help prevent crime, when feasible.

Public Services and Facilities Element: Policy 4

Ensure law enforcement services are involved in the development review process.

⁴ <https://wp.sbcounty.gov/sheriff/patrol-stations/highland/>

City of San Bernardino Public Facilities and Services

The City of San Bernardino General Plan offers the following Public Facilities and Services Goals and Policies regarding police protection services:

Public Facilities and Services Element: Goal 7.1

Protect the residents of San Bernardino from criminal activity and reduce the incidence of crime.

Public Facilities and Services Element: Policy 7.1.1

Maintain a complement of personnel in the Police Department that is capable of providing a timely response to criminal activity and can equitably protect all citizens and property in the City. (A-3 and PFS-2)

Public Facilities and Services Element: Policy 7.1.2

Coordinate inter-agency agreements with the County and adjacent jurisdictions to provide assistance and cooperation on inter-jurisdictional cases. (PFS-5)

Public Facilities and Services Element: Policy 7.1.3

Continue to support and encourage community-based crime prevention efforts through regular interaction and coordination with existing neighborhood watch programs, assistance in the formation of new neighborhood watch groups, and regular communication with neighborhood and civic organizations. (LU-4 and PFS-6)

Public Facilities and Services Element: Policy 7.1.4

Assist the San Bernardino City Unified School District and other educational agencies in creating a program of early intervention for students that will provide instruction, recreation, and training programs outside of the classroom. (PFS-1)

Public Facilities and Services Element: Policy 7.1.5

Ensure that landscaping (i.e., trees and shrubbery) around buildings does not obstruct views required to provide security surveillance. (LU-1 and PRT-1)

Public Facilities and Services Element: Policy 7.1.6

Require adequate lighting around residential, commercial, and industrial buildings in order to facilitate security surveillance. (LU-1 and PRT-1)

Public Facilities and Services Element: Policy 7.1.7

Require the provision of security measures and devices that are designed to increase visibility and security in the design of building siting, interior and exterior design, and hardware. (LU-1 and PRT-1)

State

California Penal Code

The *California Penal Code* establishes the basis for the application of criminal law in California.

4.16.3.3 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:

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.

4.16.3.4 Potential Impacts

PP-1 Would the Project 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?

The San Bernardino County Sheriff Department provides police protection services to the City of Highland, while the City of San Bernardino Police Department, serves the City of San Bernardino. The AGSP planning area will be served by both police/sheriff departments depending on the area within which an incident occurs. The AGSP would enable development of approximately 9.27 million SF of Mixed-Use Business Park uses. Buildout of the development envisioned within the AGSP planning area would generate additional demand for existing police services. New developments associated with the buildout of the proposed AGSP would consist of a mix of industrial/business park and commercial uses, as well as up to 75,000 SF of hotel use. Many of these future uses would be fenced to limit access, and such uses do not generally attract unique or more extensive crime problems than that which would exist within the current mix of uses contained within the AGSP planning area. Furthermore, as new development plans are proposed, future development would be reviewed by the cities to ensure that adequate building configuration and other requirements are met to ensure adequate access to police protection. Additionally, both the Cities of Highland⁵ and San Bernardino (City of San Bernardino's Development Impact Fee Ordinance is City Municipal Code, Chapter 3.27) impose DIFs on new development, which would contribute to the funding of expanded facilities by the County Sheriff Department and the City of San Bernardino Police Department should they be required. Additionally, the Cities of San Bernardino and Highland General Funds cover operational expenses, and the proposed project will contribute both sales taxes and property taxes to the general fund to offset this incremental demand for police protection services. The amount of funding generated would increase as vacant parcels are developed and existing parcels are improved within the AGSP planning area. Therefore, implementation of the proposed AGSP would result in a less than significant impact to police protection services.

Mitigation Measures: None Required

Level of Significance: Less Than Significant Impact

4.16.3.5 Cumulative Impacts

Development associated with implementation of the proposed AGSP would result in additional demands on existing police protection services and equipment. New development and redevelopment of existing parcels associated with the proposed AGSP would be required to meet the City of San Bernardino or City of Highland General Plan goals and policies (listed above) that enforce requirements pertaining to ensuring adequate police protection is available within each City and ensuring the development meets applicable standards to further minimize risk pertaining to incidents requiring the police and to ensure that future projects meet the general plan standards pertaining to provision of adequate building orientation to facilitate police surveillance. Funding for expanded police protection services is assessed as development within the City occurs. Funding for these services is assessed through DIFs on new developments within the Cities of Highland and San Bernardino and through collection of future increased property and sales taxes

⁵ <https://www.cityofhighland.org/DocumentCenter/View/752/Development-Impact-Fees-DIF-4-13-20-PDF>

as contributions to the City of San Bernardino or City of Highland General Funds. Collection of these funds would ensure that new development would not reduce the staffing, response times, or existing service levels within the AGSP planning area. Therefore, implementation of development in support of the proposed General Plan would result in less than significant impacts to police protection services. As such, implementation of the proposed AGSP would not result in cumulatively considerable police protection impacts.

4.16.3.6 Unavoidable Significant Adverse Impacts

The foregoing evaluation demonstrates that though implementation of the AGSP may cause a change or increase in demand for Police Services within the AGSP planning area, this increase would not cause an unavoidable significant impact to Police Protection and Response through implementation of the AGSP. No significant unavoidable police protection impacts would occur as a result of buildout of the proposed AGSP.

4.16.4 School / Education Services

This section identifies school services within the AGSP planning area and provides an analysis of potential impacts associated with the buildout of the proposed AGSP. Information in this section is based on information in the City of Highland General Plan and City of San Bernardino General Plan Public Services and Facilities Element, and information provided by the San Bernardino City Unified School District.

The following reference documents were used in preparing this section of the DEIR:

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- San Bernardino City Unified School District Website, accessed 12/22/2020: <https://sbcusd.com/common/pages/DisplayFile.aspx?itemId=8444985>
- Ed Data, Ed Data Website for San Bernardino City Unified School District, Accessed 12/22/2020: <http://www.ed-data.org/district/San-Bernardino/San-Bernardino-City-Unified>

4.16.4.1 Environmental Setting: School / Education Services

San Bernardino City Unified School District

The San Bernardino City Unified School District (SBCUSD) serves the entirety of the AGSP planning area. At present, there are no schools located within this AGSP planning area, though a relatively newly developed High School—Indian Springs High School—is located just north of the AGSP planning area at the northwest corner of 6th Street and North Del Rosa Drive.

Enrollment within the SBCUSD has remained relatively consistent since the 2015-2016 school year at 53,303 students enrolled, and in fact has decreased slightly to 53,037 during the 2019-2020 school year.⁶ This suggests that growth within the City for the last 5 years has remained relatively stagnant.

The AGSP planning area is also served by two institutions of higher education: the San Bernardino Valley College—a community college—and the California State University, San

⁶ <http://www.ed-data.org/district/San-Bernardino/San-Bernardino-City-Unified>

Bernardino, which is a four-year liberal arts and science college, with several master's degree programs.

4.16.4.2 Regulatory Setting

City of Highland Public Services and Facilities Element

The City of Highland General Plan offers the following Public Services and Facilities Goals and Policies regarding school services:

Public Services and Facilities Element: Goal 4.9

Maintain cooperative school and public facility planning to ensure the provision of adequate school facilities and quality educational programs in a manner consistent with other City goals and policies on facility location, use, timing, funding, recreational and social joint use programs.

Public Services and Facilities Element: Policy 1

Continue to coordinate with local school districts on resolving issues such as joint use facilities, new facility locations and alternative use of vacant or underutilized sites in the City.

Public Services and Facilities Element: Policy 2

Require that new development provide the necessary funding and/or resources to establish school facilities commensurate with the impact of development on school services. In cases where existing school capacity does not support new development, require the implementation of appropriate funding mechanisms, as permitted by law, to ensure the availability of adequate school facilities. Potential financing avenues include:

- A contract with the developer to provide funds for schools
- Land dedications
- Lease back turnkey program
- Special assessment district financing, such as Mello-Roos Community Facilities Districts, for the proposed area of development

Public Services and Facilities Element: Policy 3

Encourage that all school impact fees collected from development projects be allocated toward the acquisition of land and construction of schools that serve the residents of those projects.

Public Services and Facilities Element: Policy 4

Continue to coordinate development activity with local school districts by:

- Participating with local school districts in joint planning efforts;
- Establishing a joint task force comprised of representatives from the City, school district and development community to identify additional means of funding school construction;
- Notifying school districts of proposed development applications early in the review process;
- Requesting that school districts indicate the level of facilities available to serve development projects requiring discretionary review; and
- Establishing a clear methodology for determining the impacts of development on the school facilities in the City.

Public Services and Facilities Element: Policy 5

Continue to work with local school districts to prepare a Master Plan of Schools that outlines specific sites needed to meet the future demand for school facilities.

Public Services and Facilities Element: Policy 6

Explore the possibility of locating a major institution of higher learning in Highland.

City of San Bernardino Public Facilities and Services

The City of San Bernardino General Plan offers the following Public Facilities and Services Goals and Policies regarding school services:

Public Facilities and Services Element: Goal 7.3

Meet the educational needs of the City's residents and integrate our higher educational facilities into the fabric of our community.

Public Facilities and Services Element: Policy 7.3.1

Work with the local school districts, CSUSB, and SBVC to expand facilities and services to meet educational needs. (LU-1 and PFS-4)

Public Facilities and Services Element: Policy 7.3.2

Work with the School District to ensure that new residential subdivisions dedicate land or contribute fees for the expansion of school facilities to meet the needs attributable to the new housing. (LU-1)

Public Facilities and Services Element: Policy 7.3.3

Work with the School District to consider alternative funding programs for school facilities construction and provision of educational programs should there be a shortfall of traditional revenue. (PFS-1)

Public Facilities and Services Element: Policy 7.3.4

Cooperate with the San Bernardino City Unified School District, California State University, San Bernardino, and San Bernardino Valley College to integrate educational programs and facilities; ensure that adequate educational services are provided for youth; the educational needs of the students are being monitored; and the educational curricula is being designed to meet these needs. (PFS-1)

Public Facilities and Services Element: Policy 7.3.5

Work with the Unified School District and all local educational agencies, including private schools, to provide continuing adult education courses. (PFS-1)

State

AB 2926

The State of California has traditionally been responsible for the funding of local public schools. To assist in providing facilities to serve students generated by new development projects, the State passed Assembly Bill 2926 (AB 2926) in 1986. This bill allowed school districts to collect impact fees from developers of new residential and commercial/industrial building space. Development impact fees were also referenced in the 1987 Leroy Greene Lease-Purchase Act, which required school districts to contribute a matching share of project costs for construction, modernization, or reconstruction.

Title 5

Title 5 Education Code of the *California Code of Regulations* governs all aspects of education within the State.

Public School Funding

There are two major types of state funding: general purpose and categorical. The majority of money that schools receive from the state is general purpose funding, which basically has "no strings attached." Districts determine how to best use this money. Each district has a base amount of 'general purpose' money it spends per student. That amount is called a "revenue limit". Original revenue limits were based on 1972 spending levels and have been updated ever since with cost of living adjustments (COLA). A district's total revenue limit is primarily based on how many students it has, or its average daily attendance (ADA).

Categorical aid is earmarked for targeted programs such as federal Title I Program, special education and child nutrition. Categorical programs are largely funded by state and federal sources, which come in the form of grants or conditional funding.

Prop. 13 and Prop. 98 are two major laws—both approved by California voters— have had a far-reaching effect on school finance. The first is Prop. 13 which was passed in 1978 in an attempt to limit property taxes. Since Prop. 13, California schools have increasingly relied on the state for the majority of their funding. Prop. 98 was approved in 1988 to guarantee a minimum level of funding for public schools. Most of the funding for K-12 school facilities comes from state and local bonds. A school bond enables a school district to borrow money to finance the construction of a new school or make major improvements over many years. Bond money can alleviate the burden placed on a district's general fund, freeing up money to pay for those needs.

In 2018, based on the facility cost impacts to the District for the average new home and for commercial/industrial construction as set forth in the Studies, the District Statutory School Fees equaled \$3.79 per SF for residential construction within the District and \$0.61 per square foot for commercial/industrial construction within the District.⁷

4.16.4.3 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:

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.

4.16.4.4 Potential Impacts

SS-1 Would the project 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?

The AGSP does not plan to develop any housing within the planning area. In fact, while implementation of the AGSP would to generate up to 5,097 new jobs within the AGSP planning area, the estimated 2,471 persons within an estimated 760 residential uses would ultimately be relocated to accommodate development associated with the AGSP. As stated under Chapter 4.15, Population and Housing, the proposed project has the potential to result in the employment of up to 5,097 persons, which, in turn, could result in an increase in population within the City by about 4,610 persons over the time period in which the development proposed as part of the AGSP occurs. Because of the large population of unemployed persons within the Cities of San Bernardino and Highland (with October 2020 unemployment rates of 13 and 10 percent respectively), and because it is unknown what percentage of the population would be drawn from the community or new residents of the Cities, it would be speculative to determine what new demand on schools would result from the development of the AGSP. Furthermore, the San

⁷ <https://sbcusd.com/common/pages/DisplayFile.aspx?itemId=8444985>

Bernardino City Unified School District (SBCUSD) funds construction and operation of new school facilities through school impact fees assessed on new developments and redevelopments that occur within the SBCUSD's jurisdiction. The school impact fee mitigation program of the SBCUSD adequately provides for mitigating the impacts of the proposed project in accordance with current state law. Since this is a mandatory requirement, no additional mitigation measures are required to reduce school impacts of the proposed project to a less than significant level.

Mitigation Measures: None Required

Level of Significance: Less Than Significant Impact

4.16.4.5 Cumulative Impacts

Implementation of the proposed AGSP would result in the development and redevelopment of the AGSP planning area, which has the potential to indirectly generate new students that would be served by area schools and the SBCUSD as a result of new employment opportunities within the District's jurisdiction. Individual development projects would be required to pay the School Impact Fees based on the type and size of development proposed. Pursuant to SB 50, payment of fees to the appropriate school district is considered full mitigation for project impacts, including impacts related to the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives for schools. Furthermore, if new school facilities would need to be constructed at a future date to accommodate increased demand on schools, further environmental review separate from this EIR would be required as project-specific plans are developed to determine which school districts and school-specific development proposals would result in significant impacts. All new school or other educational development would be subject to the District's environmental review process which includes project-specific environmental review under CEQA. As such, based on the data compiled herein, and adherence to the goals and policies outlined in the City of San Bernardino and Highland General Plans, cumulative school facility impacts would be considered less than significant.

4.16.4.6 Unavoidable Significant Adverse Impacts

The foregoing evaluation demonstrates that though the Project could cause a nominal unavoidable change or increase in demand for School Services within the District's jurisdictional area, this increase would not cause an unavoidable significant impact to School Services through implementation of the AGSP. Therefore, Project School Services impacts considered are less than significant.

4.16.5 Library, Cultural and Other Public Services

This section identifies library and cultural services within the AGSP planning area and provides an analysis of potential impacts associated with the buildout of the proposed AGSP. Information in this section is based on information in the City of Highland General Plan and City of San Bernardino General Plan Public Services and Facilities Element.

The following reference documents were used in preparing this section of the DEIR:

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*

4.16.5.1 Environmental Setting: Library, Cultural and Other Public Services

City of San Bernardino

According to the City of San Bernardino General Plan, the San Bernardino Public Library is governed by the administrative Library Board of Trustees as provided by Article XII of the Charter of the City of San Bernardino. Library services are provided at four sites within the City, the Normal Feldheim Library being the closest to the AGSP Planning area, located about two miles to the west of the AGSP along 6th Street (refer to Figure 4.16-1, which depicts the City's Civic, Institutional, and Cultural Facilities). The San Bernardino planning area contains a variety of civic institutions, including City and County government offices, the County Courthouse, two public colleges and the public library system. Cultural facilities include theaters, libraries, art galleries, and a museum.

City of Highland

The City of Highland has one public library, the Highland Branch of the San Bernardino County Library, which is a Library and Environmental Learning Center located at 7863 Central Avenue. The Highland Branch Library serves residents in the City and in the neighboring City of San Bernardino. Funding for the library services comes from the City's Development Impact Fee fund collected from other projects and a variety of state and federal grants. The library building is situated across from Cypress Elementary School and will serve the needs of the school as well as the general public. The library is also located next to the Jerry Lewis Community Center. The City of Highland maintains a standard of 10,000 square feet of library space per 36,000 residents; 18.3 weekly service hours per 10,000 population; 2.82 books per capita.

4.16.5.2 Regulatory Setting

City of Highland Public Services and Facilities Element

The City of Highland General Plan offers the following Public Services and Facilities Goals and Policies regarding library, cultural, and other public services:

Public Services and Facilities Element: Goal 4.1

Coordinate and balance the provision of public services with development activity to eliminate service gaps, maximize the use of public facilities, provide efficient and economical public services, achieve the equitable and legally defensible sharing of costs of such services and facilities, and maintain adequate service systems capable of meeting the needs of Highland residents.

Public Services and Facilities Element: Policy 1

Prior to permitting, ensure that all major extensions of services, facilities and utilities are comprehensively reviewed for related social, economic and environmental impacts and identify mitigation measures as appropriate.

Public Services and Facilities Element: Policy 2

Ensure that proposed development, which requires the extension of public services and facilities, will generate sufficient municipal income to pay for the operations, maintenance and replacement of those services and facilities by the City.

Public Services and Facilities Element: Policy 3

Ensure that existing residents and businesses are not burdened with the cost of financing infrastructure aimed at supporting new development or the intensification of existing development.

Public Services and Facilities Element: Policy 4

Continue to ensure that public water, sewer, drainage and other facilities needed for a project phase are constructed prior to or concurrent with initial development within that phase, unless otherwise approved by the City.

Public Services and Facilities Element: Policy 5

Continue to make the project sponsor of a proposed development ultimately responsible for ensuring the timely availability of all infrastructure improvements (including system-wide improvements) needed to support the development.

Public Services and Facilities Element: Policy 6

Continue to require that deficiencies in existing public services and facilities are corrected prior to or concurrent with proposed development.

Public Services and Facilities Element: Policy 7

Continue to coordinate with public service and utility companies to assure the long-term provision of services including water, wastewater, solid waste, electricity, natural gas and other private utilities (e.g., cable, Internet, telephone) for City residents.

Public Services and Facilities Element: Policy 8

Continue to direct future growth to areas with adequate existing facilities and services, or areas with adequate facilities and services committed, or areas where public services and facilities can be economically extended.

Public Services and Facilities Element: Policy 9

Develop a public facility assessment reporting system as part of the Capital Improvement Program and in accordance with AB 1600 to monitor the capacity of existing facilities to ensure that new developments do not overwhelm existing facilities. The following are guidelines for developing the reporting system:

- Identify and understand the demands for services that will be placed on Highland by regional demographic and economic changes.
- Monitor the progress of current local development projects, and ensure that public service and facility plans, as well as their forecasts and funding mechanisms, reflect changing conditions.
- Track the status of capital improvement program implementation.
- Develop a community survey to identify public facility deficiencies and usage.

Public Services and Facilities Element: Policy 10

Conduct and maintain an inventory of the availability and adequacy of public services and facilities in coordination with the County and service agencies in the area. Use the information to coordinate capital improvement programs and to make determinations on the adequacy of community facilities.

Public Services and Facilities Element: Policy 11

Continue to follow the procedures established for the regular exchange of information regarding proposed development and availability and adequacy of public services and facilities.

Public Services and Facilities Element: Policy 12

Continue to utilize a proactive approach to assuring that the flow of information between service agencies is maintained.

Public Services and Facilities Element: Policy 13

Utilize performance standards to determine the adequacy of public services and facilities and to establish requirements, fees and exactions provided by new development in the City.

Public Services and Facilities Element: Policy 14

Maintain a development review process that places the ultimate responsibility on the project sponsor for ensuring that necessary infrastructure improvements (including system-wide improvements) needed to support new development are, in fact, available at the time they are needed.

Public Services and Facilities Element: Policy 15

Require the construction of public facilities as a condition of approval for a proposed development if the development exceeds the capacity of existing public facilities to support such development.

Public Services and Facilities Element: Policy 16

Continue to require that project applicants provide sufficient information in the application process so that the City may comprehensively determine the potential impacts and/or the need for improvements to existing services and facilities to support project buildout consistent with the City's performance.

Public Services and Facilities Element: Policy 17

Continue to require that all new development pay the applicable Development Impact Fees established by the City Council.

Public Services and Facilities Element: Policy 18

Maintain flexibility in the collection and application of Development Impact Fees to permit the construction of master planned facilities in lieu of fees when the City determines that it is in the public interest to do so.

Public Services and Facilities Element: Policy 19

Continue to require the construction of public facilities as a condition of approval where the value of the services and facilities needed to support buildout of a proposed development exceed established Development Impact Fees, as consistent with the City's performance standards. Require an agreement with the developer for reimbursement from future development fees for the excess costs. Such reimbursements shall be from future fees collected for the specific excess facilities, which the initial developer was required to construct.

Public Services and Facilities Element: Policy 20

In the event that the performance standards for public services and facilities are not being met, the following conditions shall apply:

- Where the performance standards are not being met due to needs created by existing development, the City Council shall adopt in its Capital Improvement Plan a program to ensure that the performance criteria will be met at the earliest possible date.
- In instances where the performance standards are being exceeded prior to approval of a proposed development as the result of existing development, require that the proposed development provide such facilities as are necessary to ensure that performance criteria are met for new public facilities and services provided to the development, and that existing public services and facilities are not further downgraded.

Public Services and Facilities Element: Policy 21

Review the development fee structure, user charges, and mitigation fees every five years in accordance with the provisions of AB 1600 to ensure that the charges are consistent with the costs of improvement and maintenance and that public services and facilities are being expanded in a cost-efficient manner. Utilize the City's performance standards for public services and facilities as the basis for this review.

Public Services and Facilities Element: Policy 22

Continue to require that planned communities participate in the development of public infrastructure, in addition to the payment of development impact fees, through the following methods:

- An approved development agreement for all new specific plan or planned unit development projects that specifies the timing of infrastructure improvements in relation to project development.
- An annual review of improvements conducted for all new specific plans and an annual report in a format that can be easily included in the City's infrastructure assessment and reporting system.

Public Services and Facilities Element: Policy 23

Continue to proactively monitor and review development proposals in surrounding areas to protect City interests and minimize impacts on the community.

Public Services and Facilities Element: Policy 24

Continue to work with the County on a system of requiring appropriate mitigation to ensure that new unincorporated development will not impact services and facilities in the City.

Public Services and Facilities Element: Policy 25

Continue to support an assessment district alternative to development impact fees for large-scale developments undergoing urbanization when a single owner or small number of owners is involved, and when it is in the public interest to do so.

Public Services and Facilities Element: Policy 26

Continue to allow new development and the intensification of existing development only where and when adequate public services and facilities can be provided.

City of San Bernardino Public Facilities and Services

The City of San Bernardino General Plan offers the following Public Facilities and Services Goals and Policies regarding library and cultural services:

Public Facilities and Services Element: Goal 7.4

Maintain and enhance the cultural quality of life for the City's residents.

Public Facilities and Services Element: Policy 7.4.1

Actively support public and private arts activities by coordinating City sponsored programs, private support activities, loans and grants, and other means of participation. (A-3 and PFS-9)

Public Facilities and Services Element: Policy 7.4.2

Work with public and private organizations in the community, county, and state to ensure that cultural and art programs are coordinated.

Public Facilities and Services Element: Policy 7.4.3

Require developers to incorporate art in new commercial and industrial projects or contribute in-lieu fees for public art improvements as permitted by State Law. (LU-1)

Public Facilities and Services Element: Policy 7.4.4

Incorporate sculpture, paintings, and other forms of art in City buildings.

Public Facilities and Services Element: Policy 7.4.5

Focus elements of art in the City's key activity areas and corridors. (CD-1 and PFS-1)

Public Facilities and Services Element: Policy 7.4.6

Evaluate the feasibility for the development of a regional center for the performing and fine arts. (PFS-1)

Public Facilities and Services Element: Policy 7.4.7

Evaluate the feasibility of developing a facility as an archive for the City's historical resources. (PFS-1)

Public Facilities and Services Element: Policy 7.4.8

Coordinate and promote the public's awareness of arts programs through City newsletters and other publications and cable television public access. (PFS 10-12)

Public Facilities and Services Element: Policy 7.4.9

Facilitate the formation of community groups involved in cultural activities and provide artists, craftsman and dancers with communication opportunities by establishing a referral service or newsletter.

Public Facilities and Services Element: Policy 7.4.10

Work with recreation services and schools to develop art appreciation programs.

Public Facilities and Services Element: Policy 7.4.11

Annually allocate funds to support cultural and arts activities in the City. (A-3)

Public Facilities and Services Element: Policy 7.4.12

Solicit state and federal funds to support local cultural and arts activities, as they are available. (A-3 and PFS-9)

Public Facilities and Services Element: Policy 7.4.13

Solicit corporate sponsorship and private donations for public art and art and cultural facilities and programs.

Public Facilities and Services Element: Policy 7.4.14

Construct new libraries and rehabilitate and expand existing library facilities and programs as required to meet the needs of existing and future residents. (PFS-6)

Public Facilities and Services Element: Policy 7.4.15

Acquire materials for the library facilities that reflect the needs and interests of the City residents. (PFS 9 and PFS-6)

Public Facilities and Services Element: Policy 7.4.16

Provide outreach services for seniors and the handicapped, if they cannot visit library facilities.

Public Facilities and Services Element: Policy 7.4.17

Provide appropriate linkages for the library's use of telecommunication and computer-based data for the storage, retrieval, and display of information including online access and CD Rom, as technologies develop and are standardized. (PFS-9 and A-3)

Public Facilities and Services Element: Policy 7.4.18

Continue to provide funding for library facilities and activities, examining other potential funding sources, including state and federal and corporate and private contributions. (A-1)

Public Facilities and Services Element: Policy 7.4.19

Develop and install automated library circulation system and automated catalog for accurate and efficient control of materials. (A-3 and PFS-1)

State

There are no applicable state regulations related to library services.

4.16.4.3 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:

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, cultural, and other public services.

4.16.4.4 Potential Impacts

LCS-1 Would the project 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 and other public services?

Other public services include Library Services within the City of San Bernardino. The City of San Bernardino bases its library services requirements on the Division of Library Development Services of the State of California's standard of 1.5 volumes per capita, while the City of Highland's standards are 10,000 square feet of library space per 36,000 residents; 18.3 weekly service hours per 10,000 population; 2.82 books per capita.

As stated under Chapter 4.15, Population and Housing, the proposed project has the potential to result in the employment of up to 5,097 persons, which, in turn, could result in an increase in population within the City by about 4,610 persons over the time period in which the development proposed as part of the AGSP occurs. Because of the large population of unemployed persons within the Cities of San Bernardino and Highland (with October 2020 unemployment rates of 13 and 10 percent respectively), and because it is unknown what percentage of the population would be drawn from the community or new residents of the Cities, it would be speculative to determine what new demand on library, cultural, and other public services that would result from the development of the AGSP. Furthermore, the City of Highland assesses a Library Facilities and Collection fee as does the City of San Bernardino (in the form of a DIF) that are specific to residential development, of which none is proposed as part of the AGSP; industrial/business park development such as that which is proposed as part of the AGSP would not be subject to payment of development impact fees pertaining to library facilities within the City of Highland.

Within the City of San Bernardino, the General Plan concludes that capital costs to provide additional Library facilities and improvements would be funded by the State Library Fund bond measure and operating costs through the normal City revenue sources and budgetary process. Future projects proposed to be developed under the AGSP would contribute applicable funds through property and sales tax, which is considered adequate to offset impacts to library services from the proposed project. These fee mitigation programs and tax collection directed towards library, cultural, and other public services adequately provide for mitigating the impacts of the proposed project in accordance with current state law. Since this is a mandatory requirement, no additional mitigation measures are required to reduce library, cultural, and other public service impacts of the proposed project to a less than significant level.

Mitigation Measures: None Required

Level of Significance: Less Than Significant Impact

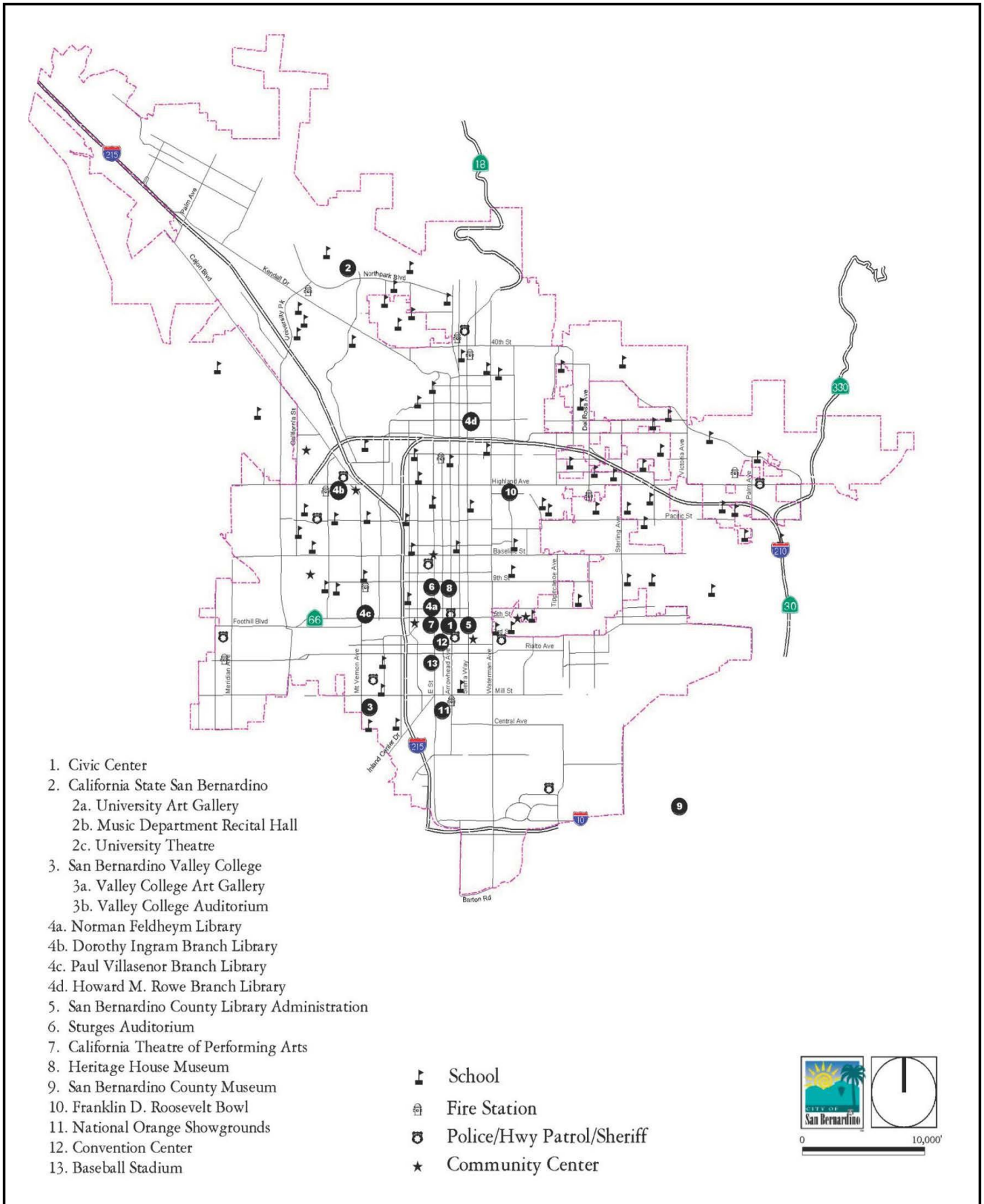
4.16.4.5 Cumulative Impacts

Implementation of the proposed AGSP would result in the development and redevelopment of the AGSP planning area, and as such, has the potential to result in an increase in population within the two cities due to expanded development that could result in employment growth and potential population growth. Individual development projects within the AGSP and within the Cities of Highland and San Bernardino would contribute property and sales tax to both of the Cities, which would offset impacts to library, cultural, and other public services; while in both of the Cities, future residential projects—of which none are anticipated to be developed within the AGSP planning area—are required to pay development impact fees directed to library services based on the type and size of development proposed. Therefore, individual project applicants would be required to pay the statutory fees, so that library, cultural, and other public services can be expanded to accommodate population growth. Therefore, development of the proposed project and related cumulative projects would not result in significant cumulative impacts in regards to library services and facilities, cultural or other public services.

4.16.4.6 Unavoidable Significant Adverse Impacts

The foregoing evaluation demonstrates that though the Project would cause a nominal unavoidable change or increase in demand for library, cultural, and other public within the area, this increase would not cause an unavoidable significant impact to library, cultural, and other public service through implementation of the AGSP. Therefore, Project library, cultural, and other public service impacts are less than significant.

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SOURCE: City of San Bernardino General Plan, November 2005 (Figure PFS-1)

FIGURE 4.16-1

4.17 RECREATION AND PARKS

4.17.1 Introduction

This Subchapter evaluates the environmental impacts to the issue area of parks and recreation from implementation of the proposed Project, the proposed Airport Gateway Specific Plan (AGSP). Information in this section is based on information in the City of Highland General Plan Conservation and Open Space Element, and the City of San Bernardino General Plan Parks, Recreation, and Trails Element.

This document is a full-scope Draft Program Environmental Impact Report (DPEIR) for the above-described project and all of the standard issues related to recreation identified in Appendix G of the CEQA Guidelines. Analysis of these issues will determine whether implementation of the AGSP would result in an impact to parks; would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or, would include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

The AGSP project area currently contains a population estimated at 2,616¹ contained within 760 residential units.^{2,3} The AGSP envisions replacing the existing mix of uses—which presently includes commercial, industrial, residential, vacant land, and public facility uses—within the planning area with approximately 9.27 million SF of Mixed-Use Business Park uses. To accomplish this land use transition within the AGSP would require development of up to 225 acres of existing occupied acreage and conversion of about 243 acres of vacant land to Mixed Use Business Park uses.

These issues pertaining to population and housing will be discussed below as set in the following framework:

- 4.17.1 Introduction
- 4.17.2 Regulatory Setting
- 4.17.3 Environmental Setting
- 4.17.4 Thresholds of Significance
- 4.17.5 Methodology
- 4.17.6 Potential Impacts
- 4.17.7 Mitigation Measures
- 4.15.8 Cumulative Impacts
- 4.15.9 Unavoidable Significant Adverse Impacts

The following comments from the public regarding were received during the NOP comment period or at the Scoping Meeting. Scoping Meeting Speaker #7 Yassi: The speaker states that there is not a greenspace or indoor recreation facility. How would the AGSP facilitate this?

¹ 748 units x 0.659 = 485 homeowner units x 3.5 persons per household = 1697.5 persons x 0.992 [the homeowner occupancy rate] = 1,684 persons. 748 units x 0.351 = 263 rental units x 3.5 persons per household = 920.5 persons x 0.969 [the rental occupancy rate] = 892 + 1,684 = 2,576 persons within the City of Highland and 12 units x 0.468 = 5.6 homeowner units x 3.5 persons per household = 19.66 persons x 0.992 [the homeowner occupancy rate] = 20 persons. 12 units x 0.532 = 6.38 rental units x 3.5 persons per household = 22.34 persons x 0.969 [the rental occupancy rate] = 22 + 20 = 40 persons within City of San Bernardino

² https://scag.ca.gov/sites/main/files/file-attachments/highland_localprofile.pdf?1606014844

³ https://scag.ca.gov/sites/main/files/file-attachments/sanbernardino_localprofile.pdf?1606014826

*Response: The Cities consider impacts to parks from industrial, commercial, and other non-residential projects less than significant through the contribution of property and sales taxes, which in turn contribute to the general funds of the Cities of Highland and San Bernardino commensurate with property value and sales values. Neither City presently has a funding mechanism to obtain development impact funds from Industrial and Commercial uses, as such MM **REC/PK-1** would require future projects to contribute funds to the City/Cities within which the proposed development is located that, which would be allocated to developing or improving parks and/or recreational facilities within the AGSP planning area or otherwise located within the corresponding City. The fair share contribution to parks and/or recreational facilities is for every 10,000 SF of development associated with the AGSP, the project shall contribute 0.11% of the funds necessary to develop 25.5 acres of parkland or otherwise fairly contribute to development of parks as defined by the City of San Bernardino, City of Highland, and the IVDA.*

The following reference documents were used in preparing this section of the DEIR.

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- City of Highland Development Impact Fees as of 4/13/20. Accessed 12/22/20 at: <https://www.cityofhighland.org/DocumentCenter/View/752/Development-Impact-Fees-DIF-4-13-20-PDF>
- City of San Bernardino General Plan Draft Environmental Impact Report, 2005
- City of San Bernardino Website: Parks. Accessed 12/28/20 at: <http://www.ci.san-bernardino.ca.us/cityhall/parks/parks/default.asp>
- City of San Bernardino Website: Parks, Recreation & Community Services. Accessed 12/28/20 at: <http://www.ci.san-bernardino.ca.us/cityhall/parks/default.asp>
- Southern California Association of Governments (SCAG) Local Profile City of Highland. Accessed 12/28/20 at: https://scag.ca.gov/sites/main/files/file-attachments/highland_localprofile.pdf?1606014844
- SCAG Local Profile City of San Bernardino. Accessed 12/28/20 at: https://scag.ca.gov/sites/main/files/file-attachments/sanbernardino_localprofile.pdf?1606014826
- City of San Bernardino Municipal Code. PDF Accessed 12/28/20 at: <http://www.ci.san-bernardino.ca.us/civicax/filebank/blobload.aspx?blobid=19233>

4.17.2 Regulatory Setting

City of Highland Conservation and Open Space Element

The City of Highland General Plan offers the following Conservation and Open Space Element Goals and Policies regarding parks and recreations:

Conservation and Open Space Element: Goal 5.10

Maintain a high-quality system of parks that meet the needs of all segments of the community.

Conservation and Open Space Element: Policy 1

Develop and periodically update a Parks and Recreation Master Plan, with direction from the Planning Commission, Design Review Board and City Council, to identify specific future sites for additional parks and recreational open space.

Conservation and Open Space Element: Policy 2

Supplement existing development fee program for parkland acquisition with other funding sources, grants and programs (fee sponsors, corporate sponsors, fund raising, for example).

Conservation and Open Space Element: Policy 3

Use the redevelopment process for the selection, acquisition and funding of additional parkland in western portions of the City.

Conservation and Open Space Element: Policy 4

Prepare a phased strategy for developing new facilities.

Conservation and Open Space Element: Policy 5

Assess areas of potential annexation into the City and, if necessary, negotiate an agreement with the County of San Bernardino to provide parks meeting City standards within areas of eventual annexation into the City.

Conservation and Open Space Element: Policy 6

Conduct periodic assessments of park and recreation facilities and services, including user surveys.

Conservation and Open Space Element: Policy 7

Provide handicap access to all parks.

Conservation and Open Space Element: Policy 8

Develop a multi-dimensional recreation program for all citizen groups in Highland including exercise, arts and crafts and cultural enrichment.

Conservation and Open Space Element: Policy 9

Provide a variety of activity options, including active and passive uses, within each park.

Conservation and Open Space Element: Policy 10

Study the desirability of developing "specialty parks" such as skate, dirt bike, fishing and art parks.

Conservation and Open Space Element: Policy 11

Evaluate the facilities and amenities of all City parks as part of the periodic update of the Parks and Recreation Master Plan.

Conservation and Open Space Element: Policy 12

Conduct periodic user surveys on the design of public parks.

Conservation and Open Space Element: Policy 13

Conduct service-area based design charettes with community members on park design.

Conservation and Open Space Element: Policy 14

Give priority to the acquisition of large parcels for the development of Community Parks that accommodate athletic fields.

Conservation and Open Space Element: Policy 15

Encourage design competitions for new and remodeled parks.

Conservation and Open Space Element: Policy 16

Continue to implement the local park ordinance through developer dedication of parkland or in-lieu fees.

Conservation and Open Space Element: Policy 17

Require that new specific plans and planned unit developments (PUDs) incorporate sufficient park and recreation facilities along with natural open space areas, where appropriate, to serve the needs of their future residents.

Conservation and Open Space Element: Policy 18

Given the residential focus in Highland, increase park standard acreage ratios above state required minimums.

Conservation and Open Space Element: Policy 19

Connect newly developed parks, wherever practical, to the existing and future bicycle and recreational trail system.

Conservation and Open Space Element: Policy 20

Initiate a long-term program to correct park deficiencies.

Conservation and Open Space Element: Policy 21

Adopt a density bonus program for development that includes usable park and open space lands above the City-required standard.

Conservation and Open Space Element: Policy 22

Develop recreational opportunities within the Greenspot area.

Conservation and Open Space Element: Policy 23

Design parks in accordance with contemporary safety standards and "CPTED" (Crime Prevention Through Environmental Design) principles.

Conservation and Open Space Element: Policy 24

Periodically evaluate parks for safety and maintenance.

Conservation and Open Space Element: Policy 25

Conduct evaluation of park improvements to test for safety compliance, crime prevention and effective maintenance.

Conservation and Open Space Element: Policy 26

Pursue joint public/private development of recreation facilities, especially in areas where joint development would maximize use of existing facilities, as well as add new land to the facility.

Conservation and Open Space Element: Policy 27

Develop and implement a facilities plan that indicates the potential development of recreational facilities, their costs and implementation at selected school sites.

Conservation and Open Space Element: Policy 28

Establish clear policies about the proper community use of school facilities including maintenance, scheduling, fees and regulations.

Conservation and Open Space Element: Policy 29

Locate parks and recreation facilities within convenient walking and biking distance of all neighborhoods.

Conservation and Open Space Element: Policy 30

Integrate park and recreation facilities with existing and future trail and bikeways, wherever practical.

Conservation and Open Space Element: Policy 31

Prepare templates for proper on and off-site signage for all parks.

City of San Bernardino Parks, Recreation, and Trails Element

The City of San Bernardino General Plan offers the following Parks, Recreation, and Trails Goals and Policies regarding parks and recreation:

Parks, Recreation, and Trails Element: Goal 8.1

Improve the quality of life in San Bernardino by providing adequate parks and recreation facilities and services to meet the needs of our residents.

Parks, Recreation, and Trails Element: Policy 8.1.1

Establish a comprehensive parks master plan, which accomplishes the following:

- a. Establishes the standard of 5 acres of parkland for every 1,000 residents;
- b. Establishes guidelines for the types and amounts of recreational facilities and services necessary to adequately serve future residents;
- c. Defines park development standards based on types and sizes of parks (mini, neighborhood, community, regional) and their service area (e.g. Mini- 1/4 to 1/2 service radius);
- d. Describes the steps necessary to achieve the park standards and guidelines;
- e. Defines existing and anticipated recreational needs (based on population size, density, demographics, and types of facilities);

- f. Identifies areas in need of new or expanded recreational facilities and the types of facilities needed;
- g. Disperses park facilities and equipment throughout the City to prevent an undue concentration at any location; including sports fields, basketball courts, tennis courts, swimming pools, picnic areas, and other facilities;
- h. Identifies appropriate park fees;
- i. Identifies potential locations and types of new or expanded facilities; and
- j. Identifies potential funding sources. (PRT-1)

Parks, Recreation, and Trails Element: Policy 8.1.2

Provide a variety of park “experiences”, including those developed for intense recreational activity, passive open space enjoyment, and a mixture of active and passive activities. (PRT-1 and PRT-4)

Parks, Recreation, and Trails Element: Policy 8.1.3

Pursue the development of portions of the Santa Ana River, Lytle Creek, and flood control drainages and detention basins for recreational uses that will not inhibit flood control purposes or be adversely impacted by flooding. (PRT-6)

Parks, Recreation, and Trails Element: Policy 8.1.4

Examine the potential use of geothermal resources for recreational use (e.g., pools). (PRT-1)

Parks, Recreation, and Trails Element: Policy 8.1.5

Integrate parks and recreation facilities with the Master Plan for Trails and Bikeways. (PRT-1)

Parks, Recreation, and Trails Element: Policy 8.1.6

Accommodate the recreational needs of the City’s residents reflecting their unique social, cultural, ethnic, and physical limitations in the design and programming of recreational spaces and facilities. (PRT-1 and PRT-4)

Parks, Recreation, and Trails Element: Policy 8.1.7

Continue to evaluate the community’s recreational needs and the adequacy of the City’s recreational facilities and programs in meeting these needs. (PRT-4)

Parks, Recreation, and Trails Element: Policy 8.1.8

Inform residents of recreational programs through the internet, cable television, newsletters, and other publications. (PRT-5)

Parks, Recreation, and Trails Element: Policy 8.1.9

Initiate and attend joint meetings with the Forest Service, County Parks and Recreation Department, and the state to coordinate the joint use of recreational facilities, parkland acquisition, and the establishment of new recreational programs. (PRT-6)

Parks, Recreation, and Trails Element: Policy 8.1.10

Maintain and expand cooperative arrangements with the San Bernardino Unified School District, City Municipal Water Department, Cal State San Bernardino and San Bernardino Valley College for after hour and summertime use of parks, pools, concert halls, and other facilities. (PRT-6)

Parks, Recreation, and Trails Element: Goal 8.2

Design and maintain our parks and recreation facilities to maximize safety, function, beauty, and efficiency.

Parks, Recreation, and Trails Element: Policy 8.2.1

Parks shall be designed in accordance with contemporary safety standards and “CPTED” (Crime Prevention Through Environmental Design) principles. (PRT-1)

Parks, Recreation, and Trails Element: Policy 8.2.2

Each park within the City shall be evaluated for safety and maintenance on an established schedule. (PRT-4)

Parks, Recreation, and Trails Element: Policy 8.2.3

Encourage local individuals and groups to contribute or plant trees (in accordance with a prescribed tree planting plan) in neighborhood and community parks.

Parks, Recreation, and Trails Element: Policy 8.2.4

Develop master plans for each park to ensure that (a) the siting of buildings, open air facilities, and landscape are unified, functionally related to efficiency, and compatible with adjacent uses; and (b) landscape locations and species are coordinated with architectural and site design. (PRT-1)

Parks, Recreation, and Trails Element: Policy 8.2.5

Design and develop parks to complement and reflect their natural environmental setting and maximize their open space character. (PRT-1)

Parks, Recreation, and Trails Element: Policy 8.2.6

Design and improve our parks according to the following:

- a. Locate parks on collector or neighborhood streets so they are easily accessible to adjacent residential neighborhoods;
- b. Site uses so that they do not adversely impact adjacent residences (e.g., locating high activity, noise-generating, and nighttime uses away from residences);
- c. Fulfill the particular needs of residents of the area they serve (i.e., senior citizens, and families with children);
- d. Provide for parking so that it does not disrupt abutting residences; and
- e. Incorporate landscape that “fits” with adjacent areas. (PRT-1)

Parks, Recreation, and Trails Element: Policy 8.2.7

Install new and replace existing landscaping where it is severely deteriorated, inappropriately located for park activities, and incompatible with other landscape and adjacent uses. (PRT-1)

Parks, Recreation, and Trails Element: Policy 8.2.8

Ensure that all parks are adequately illuminated for safe use at night. (PRT-1)

Parks, Recreation, and Trails Element: Policy 8.2.9

Provide for the supervision of park activities and promote enforcement of codes restricting illegal activity. (PRT-1)

Parks, Recreation, and Trails Element: Policy 8.2.10

Restrict and control nighttime park use so that adjacent residences are not adversely affected. (PRT-1)

Parks, Recreation, and Trails Element: Goal 8.4

Provide adequate funding for parkland and trails acquisition, improvements, maintenance, and programs.

Parks, Recreation, and Trails Element: Policy 8.4.1

Pursue the acquisition of surplus federal, state, and local lands to meet present and future recreation and community service needs. (PRT-2 and PRT-6)

Parks, Recreation, and Trails Element: Policy 8.4.2

Continue to require developers of residential subdivisions to provide fee contributions based on the valuation of the units to fund parkland acquisition and improvements. (LU- 1)

Parks, Recreation, and Trails Element: Policy 8.4.3

Grant Quimby fee waivers only when usable parklands are received and when such waivers are determined to be in the best interest of City residents as certified by the Mayor and Common Council on recommendation of the Parks, Recreation and Community Services Department. (PRT-1 and LU-1)

Parks, Recreation, and Trails Element: Policy 8.4.4

Continue and expand mechanisms by which the City may accept gifts and dedications of parks, trails, open space, and facilities. (PRT-2)

Parks, Recreation, and Trails Element: Policy 8.4.5

Consider the use of special taxes, sale of bonds, or assessment districts for park and trail development and maintenance. (PRT-2)

Parks, Recreation, and Trails Element: Policy 8.4.6

Continue to provide financial support, including user fees and in-lieu fees, for summer lunch, playground, swimming pool programs and recreational facilities, and other appropriate programs. (PRT-2 and PRT-3)

Parks, Recreation, and Trails Element: Policy 8.4.7

Installation and/or replacement of the recreational facilities and equipment and the bikeway and trail system shall be carried out as part of the City's Capital Improvement Program. (A-2)

City of Highland Municipal Code

The City of Highland Municipal Code Chapter 12.06, Public Parks and Properties, outlines park rules, exemptions, permit procedures and issuance parameters, parameters pertaining to alcohol, hours, and penalties that apply to their City Parks.

City of San Bernardino Municipal Code

The City of San Bernardino Municipal Code Chapter 12.80.130 provides information pertaining to park regulations.

State

Quimby Act

The Quimby Act (State of California Planning and Zoning Law and the Subdivision Map Act, Code Section 66477) allows cities and counties to pass ordinances requiring that residential developers set aside park and recreation land, donate conservation easements, pay fees for park and recreation facility improvements or a combination thereof as a condition of approval of a Tract Map or Parcel Map. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities. The Quimby Act provides acreage/population standards and formulas for determining park land contribution and requires that local ordinances include definite standards for determining the proportion of the development to be dedicated and/or the amount of the fee to be paid.

4.17.3 Environmental Setting: Recreation and Parks

City of Highland

According to the City of Highland General Plan, there were 143.6 acres of developed park, and 36 acres of natural parkland within the City, totaling 179 acres, which meets the City's goal for parkland/open space acreage per resident. The open space ratio established for the Highland is 2.5 acres per 1,000 residents, which includes a ratio of 2.0 acres of developed park acreage and 0.5 acre of undeveloped natural parkland. Additional recreational needs of the City are met by the sports fields and playgrounds of the eight schools in the City, parks or schools in surrounding cities, vacant lots and a few privately held fields that serve as informal ball fields and gathering places. The City not only collects Quimby funds and general revenues, but also collects fees for certain planned uses of their parks (planned uses include scheduling organized sports such as baseball and soccer, etc.). There are no parks located within the AGSP planning area, as shown on Figure 4.17-1, the City of Highland Park Services Area, though the planning area is located within a half mile radius of three parks or public schools with recreation facilities open to the public including Highland Community Park, facilities at Cypress Elementary School, and facilities at Warm Springs Elementary School. Highland Community Park sits on the northerly border of the Specific Plan Area on the east side of Central Avenue at the terminus of 6th Street. It includes more than 20 acres of active ball fields, passive trails, tot lot, and a community recreation center

(Jerry Lewis Community Center) including a gymnasium, pool, fitness center and community gathering areas open to the public. The Highland Branch Library and Environmental Learning Center is situated to the south of the Community Center making it convenient to visit both facilities.

City of San Bernardino

According to the City of San Bernardino General Plan, the City utilizes a park acreage standard of five acres per 1,000 residents, which is one acre greater than the land required by the state's Quimby Act, which requires developers to provide land and/or fees for new parks based on a standard of four acres per thousand residents. When the City's General Plan was adopted, the parkland needs for the Incorporated City was 1,140.4 acres, and at present that need is about 1,081.5 acres; however, the City is deficient in terms of parkland with only 539.98 acres identified in the City's General Plan EIR. At present, the City of San Bernardino Parks, Recreation and Community Services Department offers 38 parks (including open spaces and ballfields), 31 playground areas and several park locations with walking tracks for recreational activities.⁴ The Parks, Recreation and Community Services Department maintains all City parks and develops programs for the community to enjoy. Main annual events include, the Veterans Day Parade, Operation Splash, Inland Empire Senior Games, Winter Wonderland and more. The Department has also reintroduced youth and adult sports programs for 2017.⁵ The City includes seven community centers that offer a variety of leisure and social activities for all ages and cultural interest such as youth and adult sports, summer and off track lunch program, teen and youth clubs, tutoring, arts and crafts, senior nutrition, family night, etc.

In addition, there are three regional parks totaling 158 acres that have active recreation facilities, the many school sites in the City that are available for recreational activities, special recreation facilities (community centers and senior centers) and the presence of year-round passive and active recreation opportunities in the nearby San Bernardino National Forest.

As with the City of Highland, there are no parks located within the AGSP planning area within the City of San Bernardino, though the nearest park-type facility is the Indian Springs High School located just north of the project planning area at the northwest corner of Del Rosa Drive and 6th Street. The school has extensive outdoor recreation fields and an aquatics center utilized by local swim clubs.

4.17.4 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:

- REC/PK-1 Would 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 parks.
- REC/PK-1 Would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- REC/PK-1 Would include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

⁴ <http://www.ci.san-bernardino.ca.us/cityhall/parks/parks/default.asp>

⁵ <http://www.ci.san-bernardino.ca.us/cityhall/parks/default.asp>

4.17.5 Methodology

The information provided in this Subchapter of the DPEIR was obtained through a mix of library research and field investigation. Most of the park and recreation data was obtained by reviewing the two city General Plans. The location of existing parks and recreation facilities was field verified by driving the local roads and observing the location of such facilities.

4.17.6 Potential Impacts

REC/PK-1 Would the project 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 parks?

According to the 2005 City of San Bernardino General Plan Draft Environmental Impact Report (DEIR), the City of San Bernardino has an adopted park standard of 5 acres per 1,000 residents, while the City of Highland has an adopted park standard of 2.5 acres per 1,000 residents. As stated under Chapter 4.15, Population and Housing, the proposed project has the potential to result in the employment of up to 5,067 persons, which, in turn, could result in an increase in population within the City by about 4,610 new residents over the time period in which the development proposed as part of the AGSP occurs. Because of the population of unemployed persons within the cities of San Bernardino and Highland (an estimated 5,300 persons between the two Cities⁶), and because it is unknown what percentage of the population would be drawn from the community or new residents of the Cities, it would be speculative to conclude what new demand on parks would result from the development of the AGSP. Furthermore, the cities of both San Bernardino and Highland assess a park land acquisition and park facilities/parkland and open space development fee that is specific to residential development, of which none is proposed as part of the AGSP; industrial development such as that which is proposed as part of the AGSP would not be subject to payment of development impact fees pertaining to park development. Both the Cities of Highland and San Bernardino are currently experiencing park land shortfalls, when compared to each City's standards. Future development within the AGSP planning area would contribute property and sales taxes to the general fund of both the Cities of San Bernardino and Highland, which would contribute to offsetting the incremental demand for park land. While this is generally considered sufficient to offset any impacts to parks should the project result in a population increase within the Cities within which the AGSP planning area overlaps, the development of mini- or pocket-parks within the AGSP planning area that could potentially serve the employees of the planning area on their breaks, as well as residents of the communities surrounding the planning area would be beneficial to assist the Cities of San Bernardino and Highland to better reach their park standards.

Mitigation Measures:

As stated above, the cities consider impacts to parks from industrial, commercial, and other non-residential projects less than significant through the contribution of property and sales taxes, which in turn contribute to the general funds of the Cities of Highland and San Bernardino commensurate with future property value and sales values. The AGSP planning area would include about 9.27 million SF of Mixed Use Business Park uses, which includes the potential for 75,000 SF of Hotel use. Through development and redevelopment of the AGSP planning area, property values would increase with new development, and new sources of sales tax would also

⁶ <https://www.labormarketinfo.edd.ca.gov/data/labor-force-and-unemployment-for-cities-and-census-areas.html>

be generated. However, mitigation shall be implemented to ensure that development of the AGSP contributes fees that would contribute to the development of parkland within and adjacent to the AGSP planning area to contribute to the provision of parks that would serve the cities of San Bernardino and Highland. It is assumed that the amount of parkland that should be developed as a result of AGSP implementation would be equal to—under the worst case scenario—utilizing the park standard of 5 acres of parkland for every 1,000, and comparing the number of employees that might relocate to the Cities of Highland and San Bernardino (5,097 persons), resulting in a worst-case-scenario parkland demand of 25.5 acres of parkland ($5,097 \div 1,000 = 5.097 \times 5 = 25.5$ acres) as a result of implementation of the AGSP. As there is not currently a funding mechanism to obtain funds from Industrial and Commercial uses within either the City of Highland or City of San Bernardino, the following mitigation measure sets forth the framework from which funding for future parks can be obtained from future AGSP projects.

REC/PK-1: Future projects shall contribute funds to the City/Cities within which the proposed development is located that shall be allocated to developing or improving parks and/or recreational facilities within the AGSP planning area or otherwise located within the corresponding City. The City of San Bernardino, City of Highland, and the Inland Valley Development Agency (IVDA) shall establish a mechanism by which future project proponents can contribute to a funding mechanism to be directed to the development or improvement of City Parks. The fair share for future AGSP Projects, except where the Cities and/or IVDA establish a different funding schedule, shall be that for every 10,000 SF of development associated with the AGSP, the project shall contribute 0.11% of the funds necessary to develop 25.5 acres of parkland or otherwise fairly contribute to development or improvement of parks as defined by the City of San Bernardino, City of Highland, and the IVDA.

Level of Significance: Less Than Significant With Mitigation Incorporated

Implementation of mitigation measure (MM) **REC/PK-1** would ensure that the future development of the AGSP would contribute funding, as deemed appropriate by the City of Highland, City of San Bernardino, and/or the IVDA, to parks and recreation facilities that may be in greater demand as a result of a possible influx of residents to the Cities as a result of employment opportunities generated by the implementation of the AGSP.

REC/PK-2 **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

Please refer to the discussion under issue **REC/PK-1** above. The proposed AGSP would not directly increase the use of existing neighborhood and regional parks or other recreation facilities because no housing would be developed as part of the AGSP that would subsequently generate new residents within the cities of San Bernardino or Highland. However, as stated under Chapter 4.15, Population and Housing, implementation of the AGSP has the potential to result in the employment of up to 5,097 persons, which, in turn, could result in an increase in population within the City by about 4,610 persons over the time period in which the development proposed as part of the AGSP occurs. Because of the population of unemployed persons within the cities of San Bernardino and Highland (an estimated 5,300 persons between the two Cities), and because it is unknown what percentage of the population would be drawn from the community or new residents of the Cities, it would be speculative to conclude what demands would be placed on neighborhood and regional parks or other recreational facilities would result from the

development of the AGSP. Neither the City of Highland nor the City of San Bernardino assess park / recreation development impact fees on industrial or commercial development. As such, there is currently no funding mechanism to offset impacts from increased park and recreation facility use that might result from commercial and industrial development indirectly resulting in population increases within the area. Future development within the AGSP planning area would contribute property and sales taxes to the general fund of both the Cities of San Bernardino and Highland, which would contribute to offsetting the incremental demand for recreation and parks as well as any physical deterioration thereof. While this is generally considered sufficient to offset any impacts to parks and recreational facilities should the project result in a population increase within the Cities within which the AGSP planning area overlaps, a contribution of a fair share fee by future development to offset impacts to parks and recreational facilities could be a beneficial means to assist the Cities of San Bernardino and Highland to better reach their park and recreational facility standards.

Mitigation Measures:

Implementation of MM **REC/PK-1** would ensure that the future development of the AGSP would contribute funding, as deemed appropriate by the City of Highland, City of San Bernardino, and/or the IVDA, to parks and recreation facilities that may be in greater demand as a result of a possible influx of residents to the Cities as a result of employment opportunities generated by the implementation of the AGSP. With implementation of MM **REC/PK-1**, implementation of the AGSP would have a less than significant potential to result in substantial physical deterioration of existing neighborhood and regional parks or other recreational facilities.

Level of Significance: Less Than Significant With Mitigation Incorporated

REC/PK-3 Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The AGSP would enable development of approximately 9.27 million SF of Mixed Use Business Park uses within the AGSP planning area, which currently contains a mix of residential, commercial, educational, industrial, and vacant land. The project does not include the development of any recreational facilities, nor would it eliminate any existing public recreational facilities or parks as a result of development associated with the AGSP, as none are currently located within the AGSP planning area. Additionally, implementation of the AGSP will not require the construction or expansion of recreational facilities because none are presently proposed to be developed as part of the AGSP at this time. However, as stated above, future development within the AGSP will be required to contribute funds for park and recreation development/enhancement due to the potential indirect population increase that may result from increased employment opportunities generated by the proposed AGSP. Additionally, the City of San Bernardino and City of Highland each utilize the General Fund to cover new recreational facility development and recreational facility maintenance expenses. As stated in the discussion under issues **REC/PK-1** and **REC/PK-2**, above, the project may induce population growth indirectly, which could cause an incremental demand for recreational facilities. The project's contribution of taxes to the General Funds is generally considered adequate to offset the potential for construction or expansion of recreational facilities to indirectly be required as a result of a possible population increase that could result from development under the AGSP. Additionally, a contribution of a fair share fee by future development to offset the potential for new or expanded recreational facilities that may be required as a result of the above described indirect population increase could be a beneficial

means to assist the cities of San Bernardino and Highland to better reach their park and recreational facility standards.

Mitigation Measures:

Implementation of MM **REC/PK-1** would ensure that the future development of the AGSP would contribute funding, as deemed appropriate by the City of Highland, City of San Bernardino, and/or the IVDA, to new and expanded recreation facilities that may be in greater demand as a result of a possible influx of residents to the cities as a result of employment opportunities generated by the implementation of the AGSP. With implementation of MM **REC/PK-1**, implementation of the AGSP would have a less than significant potential to include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Level of Significance: Less Than Significant With Mitigation Incorporated

4.17.7 Mitigation Measures

The preceding analysis has identified one mitigation measure to address the potential indirect demand that may result from implementing the AGSP. This measure is:

REC/PK-1: Future projects shall contribute funds to the City/Cities within which the proposed development is located that shall be allocated to developing or improving parks and/or recreational facilities within the AGSP planning area or otherwise located within the corresponding City. The City of San Bernardino, City of Highland, and the Inland Valley Development Agency (IVDA) shall establish a mechanism by which future project proponents can contribute to a funding mechanism to be directed to the development or improvement of City Parks. The fair share for future AGSP Projects, except where the Cities and/or IVDA establish a different funding schedule, shall be that for every 10,000 SF of development associated with the AGSP, the project shall contribute 0.11% of the funds necessary to develop 25.5 acres of parkland or otherwise fairly contribute to development or improvement of parks as defined by the City of San Bernardino, City of Highland, and the IVDA.

4.17.8 Cumulative Impacts

Implementation of the proposed AGSP would result in the development and redevelopment of the AGSP planning area, and as such, has the potential to result in an increase in population within the AGSP planning area due to expanded development that could result in population growth. Individual development projects within the AGSP and within the cities of Highland and San Bernardino would contribute property and sales tax to both of the cities, which would offset impacts to parks and recreation facilities, and the potential for new or expanded park and recreation facilities to be required in the future as a result of an indirect population growth from employment opportunities generated by AGSP development. Therefore, individual project applicants would be required to pay the statutory fees, so that park and recreation facilities can be expanded to accommodate population growth. MM **REC/PK-1** is a contingency mitigation measure intended to ensure that any incremental increase in population that could result from employment generated by development under the AGSP would not result in significant impacts to demand for park and recreation facilities, either existing, planned, or needed in the future, as neither the City of Highland nor the City of San Bernardino currently assess park or recreation

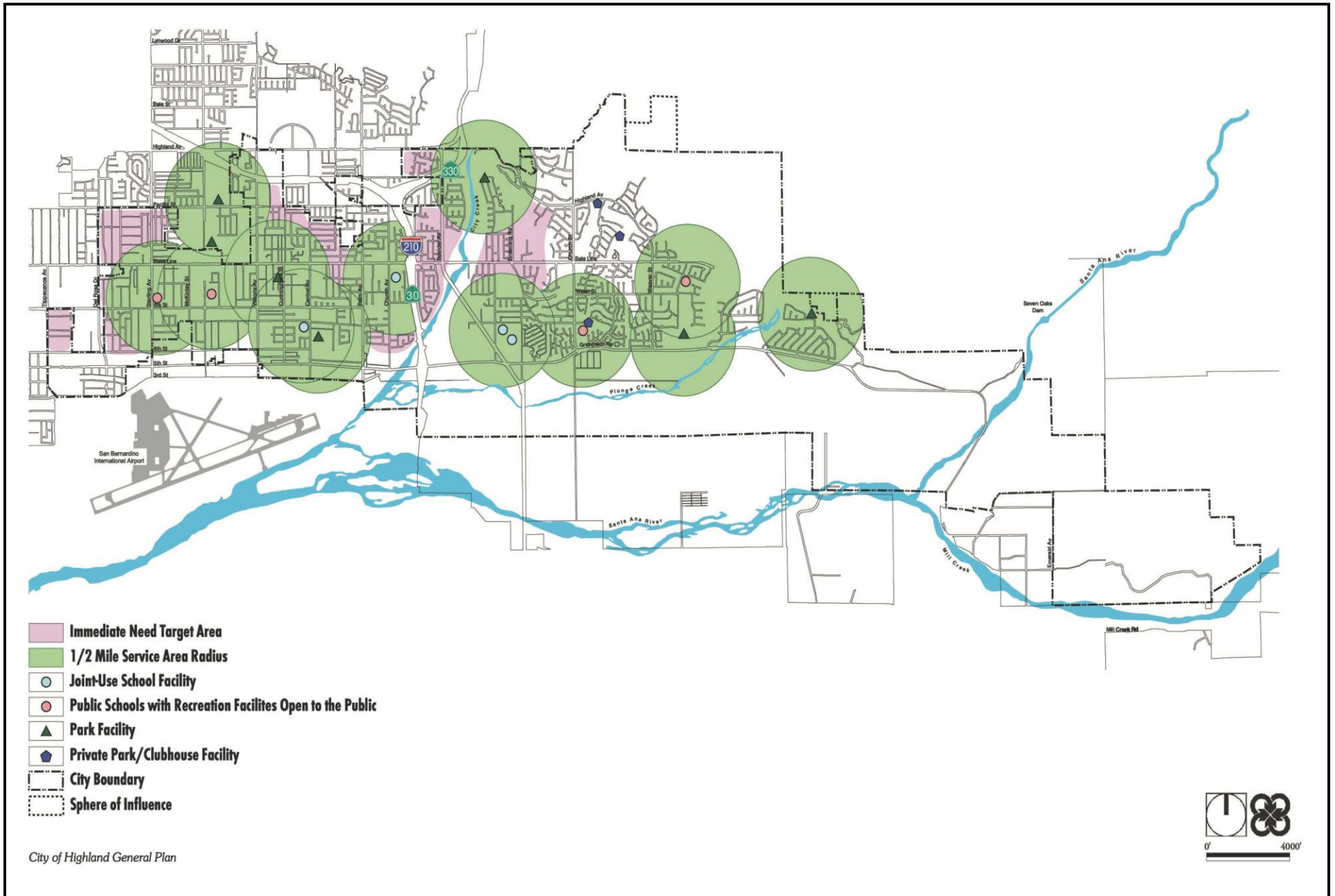
fees on industrial or commercial development. Therefore, with the implementation of MM **REC/PK-1**, development of the proposed project and related cumulative projects would not result in significant cumulative impacts in regards to park and recreation facilities.

Level of Significance: Less Than Significant With Mitigation Incorporated

4.17.6 Unavoidable Significant Adverse Impacts

The foregoing evaluation demonstrates that though the project would cause a nominal unavoidable change or a potential increase in demand for parks and recreational facilities within the area, this increase would not cause an unavoidable significant impact to parks and recreational facilities through implementation of the AGSP with mitigation outlined above. Therefore, park and recreational facility impacts are less than significant.

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SOURCE: City of Highland General Plan

FIGURE 4.17-1

Tom Dodson & Associates
Environmental Consultants

Park Service Areas

4.18 TRANSPORTATION

4.18.1 Introduction

This Subchapter will evaluate the environmental impacts to the issue area of transportation from implementation of the proposed Airport Gateway Specific Plan (AGSP).

This document is a full-scope Draft Environmental Impact Report (DEIR) for the above-described project and all of the standard issues related to Transportation identified in Appendix G of the CEQA Guidelines. Analysis of these issues will determine whether implementation of the AGSP would result in a conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities; whether implementation of the AGSP would result in a significant impact pertaining to vehicle miles traveled; whether implementation of the AGSP would result in hazards due to design or incompatible uses; and, whether implementation of the AGSP would result in inadequate emergency access.

The AGSP project area contains a substantial existing backbone circulation system, which currently has many roadways with older, deteriorating pavement. The Specific Plan area includes parcels in both the City of Highland, and the City of San Bernardino. Figure 3-10 shows the circulation system in the area surrounding the Specific Plan area. Regional access to the AGSP area is provided primarily by the Interstate 215 (I-215) Freeway, located approximately 2 miles to the west of the Specific Plan area. In addition, the I-10 Freeway is located approximately 3 miles to the south of the project. State Route 210 (SR-210) is oriented in an east-west direction approximately 2.5 miles to the north of the Specific Plan area, and then turns southward and is oriented in a north-south direction adjacent to the Specific Plan's eastern boundary.

These issues pertaining to transportation will be discussed below as set in the following framework:

- 4.18.1 Introduction
- 4.18.2 Regulatory Setting
- 4.18.3 Environmental Setting
- 4.18.4 Thresholds Criteria
- 4.18.5 Methodology
- 4.18.6 Project Impacts
- 4.18.7 Mitigation Measures
- 4.18.8 Cumulative Impacts
- 4.18.9 Unavoidable Adverse Impacts

The following comments from the public regarding transportation/traffic were received during the NOP comment period or at the Scoping Meeting:

NOP Comment Letter #7 Teamsters: The Comment Letter recommends that the DEIR contain the following: Mitigation such as, a study of specific impacts of different types of warehouse and logistical uses, and in particular the different types of vehicles (freight, trucks, commercial vans, passenger vehicles) to be used, and their impact on road wear and tear.

Response: The "Airport Gateway Specific Span Traffic Impact Study (TIS)" includes a forecast of trips from different land uses related to the ultimate buildout of approximately 9.2 million square feet of mixed Business Park uses in the AGSP by 2040. Regarding road "wear and tear" from

the future traffic it is assumed that the circulation system will gradually be reconstructed as development occurs and as funding is received from various future grants. Once reconstructed, the cities will need to allocate funding to maintain them in good condition.

NOP Comment Letter #8 San Bernardino County Public Works: The Traffic Division of the San Bernardino County Flood Control District notes in the Comment Letter the following regarding circulation in the AGSP Planning Area:

- A portion of properties adjacent to 5th Street are zoned Multi-Family, and additional residences are located within the Limited Industrial zone.

Response: The impacts to these residences and Multi-Family land use designations, including support for relocation of residents, are fully analyzed in Subchapter 4.15, Population and Housing.

- Future dedication and construction of a 6-Lane Divided Major road (5th Street) will place truck traffic immediately adjacent to the existing residences and may displace residences, and the EIR should specify which cross section listed in the EIR this is referring to.

Response: The primary goal of the AGSP is to transition residential uses from the project area and redevelop the whole corridor with mixed Business Park and Light Industrial uses. However, this transition will occur gradually, unless sufficient funding is obtained to improve the whole of the six-lane corridor at one time, which would require funding for property acquisition. The proposed structural section for 5th Street is shown on Figure 4.18-25.

- The EIR should discuss the existing structural section, which is not constructed to accommodate a 6-Lane Divided Major road with proposed volumes of truck traffic, and provide costs as well as funding mechanism to reconstruct within the EIR.

Response: The AGSP DPEIR has identified a need for a 6-Lane Divided Major road based on the anticipated trip generation within the AGSP and background traffic growth forecast through 2040. It is anticipated that adjacent development will fund some of the 5th Street road improvements. Beyond that, the IVDA and two cities have historically been successful in obtaining grants to construct new roads, such as 3rd Street east of Victoria. The economic costs to fund construction have not yet been identified as it is deemed premature. Also, it is beyond this document's responsibility to provide cost estimates as this is an economic, not an environmental issue.

- Discuss impacts to residents along Del Rosa Drive and Del Rosa Avenue from truck traffic along these roadways.

Response: Discussions with the two cities and taking into account the changes in land uses in the vicinity of the 6th Street/Del Rosa intersection (two schools and the Sterling Natural Resource Center), has resulted in a decision to eliminate Del Rosa as a truck route at least through the AGSP (from 3rd Street to 6th Street). Del Rosa will no longer be designated truck route. Ultimately within the AGSP Planning Area, the residential uses would be phased out as new development is proposed. Residences outside of the planning area would not experience AGSP related truck traffic as a result of the AGSP and within the AGSP 6th Street is proposed to restrict truck traffic to local deliveries.

- Del Rosa Drive currently has insufficient right-of-way to accommodate a 4-Lane Divided Major road, and the EIR should specify which cross section the EIR is referring to.

Response: In recognition of the construction of the Sterling Natural Resources Center at Del Rosa and 6th Street and the new schools on Del Rosa north of 6th Street, the AGSP includes a recommendation that Del Rosa not be retained as a major north-south truck route and no longer be designated as a 4-Lane Divided Major roadway.

- The Traffic Impact Study should be provided to the County for its review, and this should include supporting justification for the 2040 roadways segments.

Response: The Traffic Impact Study will be provided to the County for its review.

Scoping Meeting Speaker #5 Henry Salazar: The speaker asks: Are the truck routes established and permanent?

*Response: The truck routes are established and permanent. The truck routes are outlined in the AGSP itself, in addition to in the Project Description, and Subchapter 4.16, Transportation. The Cities each require that designated truck routes are maintained, as part of the respective General Plan Circulation Elements. MM **HAZ-1** would require all routine large truck access to industrial projects constructed between 5th and 6th Streets shall be from 5th Street. It also would designate 3rd and 5th Streets within the AGSP project area as truck routes.*

Scoping Meeting Speaker #6 Mauricio: The speaker asks does it state in the EIR/Specific Plan that a goal is to buffer trucks from residents?

*Response: As stated above under Scoping Meeting Speaker #5 Henry Salazar, and under Air Quality under NOP Comment Letter #2 (SCAQMD), MM **HAZ-1** would require all routine large truck access to industrial projects constructed between 5th and 6th Streets shall be from 5th Street, which would minimize potential conflicts with residential uses along 6th Street. This is the primary location at which sensitive receptors would be located within the AGSP upon build-out of the Planning Area, thus the intent of the above is to buffer trucks from residents.*

Scoping Meeting Speaker #7 Yassi: The speaker is concerned about truck safety along the truck routes and having trucks that can carry drayage/cargo near commercial and residential properties. The speaker vocalizes additional concerns about obscenities on cargo trucks.

*Response: Under Subchapter 4.18, Transportation, **TRAN-9** would require truck entrances to be located on 3rd or 5th street; **TRAN-10** would require projects with frontage along north-south streets to locate their passenger car driveways on the north-south streets, except where a petition is made due to infeasibility. These measures would ensure greater truck safety in the project area as much of the truck traffic would be located on higher capacity roadways, designated for truck use. Additionally, construction traffic control plans shall be prepared to minimize conflicts during construction (MM **TRAN-11**). By locating truck routes away from residences, truck safety within the planning area would be minimized.*

Scoping Meeting Speaker #8 Sheena: The speaker states that trucks blast through red lights every day in the general project area. The speaker believes that this project would bring more trucks and more development to an area that has significant traffic already.

Response: Please refer to the cumulative impact analysis provided under Subchapter 4.18, Transportation, specifically refer to Subsection 4.18.5. Please note that concerns about persistent traffic violations should be reported to the pertinent law enforcement agency as such violations

should be addressed through traffic law enforcement. The AGSP itself outlines truck routes required to be utilized by future trucks that are generated by future development under the AGSP. The requirement for use of truck routes has been generally established as a safety measure to ensure minimal conflicts between truck trips and resident generated trips. By locating truck routes away from residences, truck safety within the planning area would be safeguarded.

*Cumulative trip generation within the AGSP based on buildout of the available land and the areas receiving new land use designations within the AGSP is forecast to be 30,972 net passenger car equivalent (PCE; a PCE factor of 2.0 PCE for 2-axle trucks, 2.5 PCE for 3-axle trucks, and 3.0 PCE for 4+-axle trucks) trips on a daily basis, with 1,772 net PCE trips in the morning peak hour, and 2,220 net PCE trips in the evening peak hour. When these trips are placed on the already existing circulation system, mitigation measures must be implemented to maintain adequate roadway traffic flow on 15 road segments, and additionally, 10 intersections will need to be modified to maintain an acceptable LOS. With the implementation of MMs **TRAN-1** through **TRAN-11**, cumulative impacts to the circulation system would be minimized. However, the VMT Analysis, provided as Appendix 11b to Volume 2 of this DPEIR, concluded that the AGSP would contribute significant vehicle miles travelled. Given that the project would exceed the VMT thresholds set forth by the Cities of Highland and San Bernardino, the AGSP would contribute significant cumulative vehicle miles travelled within the project area and region. As this has been identified as a significant and unavoidable project specific and cumulative impact, in order to be certified by the IVDA Board of Directors, a Facts, Findings, and Statement of Overriding Considerations will be required to be presented to the Board as part of the Final EIR Package. This document would outline the reasons that the significant impacts are outweighed due to the “overriding considerations” or beneficial effects from implementing the AGSP.*

Note that the AGSP Project Team has considered VMT reduction measures; however, the effectiveness of TDM measures would be dependent on the ultimate building tenant(s), which are unknown at this time. Beyond project design and tenancy considerations, land use context is a major factor relevant to the potential application and effectiveness of TDM measures. More specifically, the land use context of the project is characteristically suburban. The project’s suburban context acts to reduce the range of feasible TDM measures and their potential effectiveness.

Based on available research, for projects located within a suburban context, a maximum 10% reduction in VMT is achievable when combining multiple mitigation strategies. Due to limitations of project-level approaches to reducing VMT, the City or region may consider larger mitigation programs such as VMT mitigation banks and exchanges. VMT mitigation banks and exchanges have not yet been developed or tested. SBCTA is undertaking a study to evaluate the feasibility of a VMT mitigation bank or exchange to assist lead agencies in implementing SB 743. Thus, ultimately, as the efficacy of TDM measures and reduction of VMT impacts below thresholds cannot be assured, the project’s VMT impact is considered significant and unavoidable.

Scoping Meeting Speaker #10 Jo: The speaker is looking for mitigation of traffic.

*Response: Please refer to Subchapter 4.18, Transportation. A total of 10 mitigation measures are considered under this topic to minimize potentially significant impacts. These are found under issue **TRAN-4**, and issue **TRAN-1**.*

The following reference documents were used in preparing this section of the DEIR.

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- Kimley-Horn and Associates, Inc, November 2020. *Airport Gateway Specific Plan Traffic Impact Study (TIS)*
- Southern California Association of Governments (SCAG), September 3, 2020. *SCAG's Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy)*. Accessed on 12/29/20 at: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176
- SCAG, September 23, 2020. *A Plan Summary for Connect SoCal*. Accessed on 12/29/20 at: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plansummary_0.pdf?1606000989

4.18.2 Regulatory Setting

4.18.2.1 City of Highland

City of Highland General Plan Policies

The City of Highland General Plan offers the following Circulation Goals, Policies and Programs regarding traffic and transportation:

Circulation Element: Goal 3.1

A circulation network that efficiently, safely and economically moves people, vehicles, and goods using transportation facilities that meet the current demands and projected needs of the City, while maintaining and protecting its residential and spa resort character.

Circulation Element: Policy 1

Require new development proposals to ensure that all mid-block street segments operate at LOS "D" or better during the peak hours of traffic. (Note: Because of the location of the Palm Avenue/Pacific Street intersection within the Historic District, consideration will be given to alternatives to traffic signal mitigation. Alternatively, the City may elect to accept a lower LOS to retain the historic character of the District.)

Circulation Element: Policy 2

Ensure that all intersections operate at LOS "D" or better during the peak hours of traffic.

Circulation Element: Policy 3

Ensure that the City's street system be designed and constructed to accommodate the traffic generated by buildout of the General Plan land use designations.

Circulation Element: Policy 4

Maintain flexibility in the cross-sections and configuration of streets within topographically rugged or environmentally sensitive areas as long as mid-block street segments and intersections operate at LOS "D" or better.

Circulation Element: Policy 5

Design and employ traffic control measures (e.g., install traffic signals, provide access restrictions, etc.) to ensure city streets and roads function as intended.

Circulation Element: Policy 6

Periodically update the General Plan master traffic study to maintain its relevance and correspondence to the General Plan land use designations and the design and construction of new and existing City streets.

Circulation Element: Policy 7

Monitor the intensity of land use to keep traffic on any arterial in balance with roadway capacity.

Circulation Element: Policy 8

Require development proposals with the potential to generate traffic volumes or other impacts not adequately evaluated in the Circulation Element and the General Plan Program EIR to prepare a traffic analysis consistent and compatible with the City's Master General Plan Traffic Model.

Circulation Element: Policy 9

Restrict the number of access points and intersections along arterials to preserve mid block and intersection capacities and to maintain public safety.

Circulation Element: Policy 10

Encourage major employers to reduce vehicular trips by offering incentive concepts discussed in the General Plan Circulation Element, including but not limited to reduced transit passes and preferential parking for ridesharing.

Circulation Element: Goal 3.2

Provide a well-maintained roadway system.

Circulation Element: Policy 1

Maintain and rehabilitate all components of the circulation system, including roadways, sidewalks, bicycle facilities, pedestrian facilities and traffic signals.

Circulation Element: Policy 2

Establish and maintain a roadways pavement management program (PMP) that sets forth budgeting, timelines and schedules for maintenance of existing roadways in the community.

Circulation Element: Policy 3

Continue to study the need and feasibility of providing additional all-weather crossings along critical roadways, and develop an implementation plan and schedule, if appropriate.

Circulation Element: Policy 4

Coordinate maintenance or enhancement of transportation facilities with related infrastructure improvements.

Circulation Element: Policy 5

Develop and implement programs and policies that require additional improvements or mitigation from industries or entities that generate heavy truck traffic and pavement impacts.

Circulation Element: Goal 3.3

Preserve and enhance uniquely scenic or special visual resource areas along appropriate routes for the enjoyment of all travelers.

Circulation Element: Policy 1

Designate the following roadways as Scenic Highways and establish guidelines that protect visual resources in the community and allow for the development of additional recreational opportunities:

- Boulder Avenue
- Base Line (east of City Creek)
- Palm Avenue
- Greenspot Road
- Church Street
- Highland Avenue (east of City Creek)

Circulation Element: Policy 2

Attractively landscape and maintain Highland's Secondary Highways, Special Secondary Highways, Major Highways, Primary Arterials, and Modified Primary Arterials and prepare/ implement distinctive streetscape improvement plans.

Circulation Element: Policy 3

Take such actions as may be necessary to protect scenic routes, including but not limited to:

- regulation of land use and intensity of development;
- detailed land and site planning;

- control of outdoor advertising;
- careful attention to and control of grading and landscaping; and
- careful design and maintained appearance of structures and equipment.

Circulation Element: Goal 3.4

Provide a safe circulation system.

Circulation Element: Policy 1

Establish the local street system within developing neighborhoods through a cooperative public/private planning process.

Circulation Element: Policy 2

Require new development to install and maintain streets within planned residential areas as private streets and in accordance with development standards set forth in the Development Code and other applicable standards and guidelines.

Circulation Element: Policy 3

Promote the principle that streets have multiple uses and users, and protect the safety of all users.

Circulation Element: Policy 4

Require new development to provide pedestrian paths and linkages through projects, locating linkages to avoid conflicts with motorized traffic.

Circulation Element: Policy 5

Discourage high-speed, through traffic on local streets with appropriate traffic-calming measures (e.g., traffic enforcement, bulb-outs, lane striping, chokers, etc.).

Circulation Element: Policy 6

Design access onto major arterial streets in an orderly and controlled manner.

Circulation Element: Policy 7

Utilize shared driveways in common areas to minimize disruptions to traffic and pedestrian/bicycle flow.

Circulation Element: Policy 8

Implement street design features such as the use of medians, bus turnouts and consolidated driveways to minimize mid-block traffic congestion.

Circulation Element: Policy 9

Support freeway improvements that remove through traffic from local streets.

Circulation Element: Policy 10

Provide adequate sight distances for safe vehicular movement on roadways and at intersections.

Circulation Element: Policy 11

Encourage and improve pedestrian connections from residential neighborhoods to retail activity centers, employment centers, schools, parks, open space areas and community centers.

Circulation Element: Policy 12

Encourage barrier-free accessibility for all handicapped residents, employees and visitors throughout the City's circulation system.

Circulation Element: Policy 13

Support the planning of sidewalks of appropriate width to allow the provision of buffers to shield nonmotorized traffic from vehicles.

Circulation Element: Policy 14

Add raised, landscaped medians and bulb-outs, where appropriate, to reduce exposure to cross traffic at street crossings.

Circulation Element: Policy 15

When feasible, walkways should include pedestrian amenities such as shade trees and/or plantings, trash bins, benches and shelters.

Circulation Element: Goal 3.5

Promote Bus Service and paratransit improvements.

Circulation Element: Policy 1

Continue to support the regional bus system to provide intracity service, intercity service to major employment centers, and connection to regional transportation transfer points.

Circulation Element: Policy 2

Plan for the provision of areas within the City to be used as park- and-ride regional bus and car pool facilities.

Circulation Element: Policy 3

Work with Omnitrans to ensure that transit services are extended to serve residents in the eastern portion of the study area.

Circulation Element: Policy 4

Coordinate with Omnitrans to provide safe, clean and attractive bus shelters at bus stops and transfer stations.

Circulation Element: Policy 5

Ensure accessibility of disabled persons to public transportation.

Circulation Element: Policy 6

Investigate new opportunities to finance further transit service for the elderly, handicapped and recreational purposes.

Circulation Element: Policy 7

Support privately funded local transit systems for commuter residents and maintain local transit systems for seniors and youth.

Circulation Element: Policy 8

Design transit improvements to minimize impacts on other modes of travel.

Circulation Element: Goal 3.6

Provide a circulation system that reduces conflicts between commercial trucking, private/ public transportation and land use.

Circulation Element: Policy 1

Maintain designated truck routes for use by commercial trucking that link industrial and commercial activity areas with major roadways and regional transportation routes and minimize impacts on local traffic neighborhoods.

Circulation Element: Policy 2

Provide appropriately designed roadways for the designated truck routes that can safely accommodate truck travel.

Circulation Element: Policy 3

Develop berms and barriers where feasible along truck routes to minimize noise impacts to sensitive land uses.

Circulation Element: Policy 4

Provide sufficient loading areas to minimize interference with efficient traffic circulation.

Circulation Element: Policy 5

Regulate on-street parking of trucks where necessary to discourage truck parking on primarily residential streets or where they are incompatible with adjacent land uses.

Circulation Element: Policy 6

Conduct a study examining the interface between proposed truck routes, the complete roadway network, and adjacent land uses.

Circulation Element: Policy 7

Evaluate truck route alternatives based on Caltrans Traffic Study guidelines.

Circulation Element: Policy 8

Require as a part of the development review process for all new or expanding mineral extraction and all other heavy industry activities within the City, that the following information be provided:

- A detailed plan of haul roads, indicating measures that will be taken to minimize aesthetic, noise, traffic, and particulate emission impacts to the surrounding land uses;
- A traffic analysis that indicates both the number of projected trucks and their associated potential impact to city streets;
- A “fair-share” mitigation analysis indicating the impacts and associated maintenance costs caused by the potential generation of future truck traffic; and
- A comprehensive mitigation program, designed to run the life of the mineral extraction activity (including reclamation) that will:
 - Cover the fair-share portion of surrounding roadway maintenance costs due to the increase in local truck activity, or
 - Provide new or appropriate improvements to existing roadway facilities which in the opinion of the City would mitigate the impacts caused by the increase in local truck traffic.

Circulation Element: Policy 9

Work with private mining operators to establish specialized truck routes that:

- Allow for the transport of raw and finished materials from quarries within the Santa Ana River Wash area to the Foothill Freeway on paved private haul roads;
- Reduce, to the extent feasible, the movement of mining transport trucks on City streets; and
- Mitigate, to the extent feasible, the noise, dust and vibration effects of such transport activities on surrounding land uses.

Circulation Element: Goal 3.7

Protect and encourage bicycle travel.

Circulation Element: Policy 1

Develop a system of continuous and convenient bicycle routes to places of employment, shopping centers, schools, and other high activity areas with potential for increased bicycle use.

Circulation Element: Policy 2

Encourage new development to provide reasonable and secure space for bicycle storage.

Circulation Element: Policy 3

Provide bicycle racks at all public facilities and along major public streets.

Circulation Element: Policy 4

Assure that local bicycle routes will complement regional systems and be compatible with routes of neighboring municipalities.

Circulation Element: Policy 5

Provide linkages between bicycle routes and other trails, such as the Santa Ana River Trail, within the City as appropriate.

City of Highland VMT Guidelines

The City of Highland refers to the San Bernardino County Transportation Authority (SBCTA) SB 743 Vehicle Miles Traveled Implementation Study for both VMT methodology and screening.

The SBCTA SB 743 VMT Implementation Study (February 2020) recommends VMT thresholds set to the baseline County of San Bernardino VMT per service population. A project would result in a significant project-generated VMT impact if either of the following conditions are satisfied:

1. The baseline project-generated VMT per service population exceeds the baseline County of San Bernardino VMT per service population, or
2. The cumulative project-generated VMT per service population exceeds the baseline County of San Bernardino VMT per service population.

A significant cumulative impact would occur if the project is determined to be inconsistent with the RTP/SCS and causes total daily VMT within the City to be higher than the no project alternative under cumulative conditions. As the Project is consistent with both the City of San Bernardino and City of Highland's General Plan Land Use and Zoning, the baseline project-generated VMT per service population for has been considered for this analysis.

As the project does not satisfy VMT screening criteria, a VMT analysis has been conducted for the project based on the San Bernardino County Transportation Analysis Model (SBTAM), consistent with the City of San Bernardino and SBCTA Guidelines.

For purposes of this VMT assessment, the project's VMT per service population (SP) has been compared to the countywide average VMT and City of San Bernardino General Plan (GP) Buildout VMT, based on data provided by SBCTA. As a conservative approach, the lower VMT threshold was applied, which in this case, would be the City of San Bernardino GP Buildout VMT. The table below shows the calculated VMT thresholds for VMT per SP:

Threshold Option	Countywide Average	General Plan Buildout	Threshold
VMT per SP	32.7	31.6	31.6

4.18.2.2 City of San Bernardino

City of San Bernardino General Plan Policies

The City of San Bernardino General Plan offers the following Circulation Goals, Policies and Programs regarding traffic and transportation:

Circulation: Goal 6.1

Provide a well-maintained street system.

Circulation: Policy 6.1.1

Maintain and rehabilitate all components of the circulation system, including roadways, sidewalks, bicycle facilities and pedestrian facilities. (A-2)

Circulation: Policy 6.1.2

Develop list of priorities for maintenance and reconstruction projects. (A-2)

Circulation: Policy 6.1.3

Coordinate maintenance or enhancement of transportation facilities with related infrastructure improvements. (A-2)

Circulation: Goal 6.2

Maintain efficient traffic operations on City streets

Circulation: Policy 6.2.1

Maintain a peak hour level of service D or better at street intersections.

Circulation: Policy 6.2.2

Design each roadway with sufficient capacity to accommodate anticipated traffic based on intensity of projected and planned land use in the City and the region while maintaining a peak hour level of service (LOS) "C" or better.

Circulation: Policy 6.2.3

Keep traffic in balance with roadway capacity by requiring traffic studies to identify local roadway and intersection improvements necessary to mitigate the traffic impacts of new developments and land use changes. (LU-1)

Circulation: Policy 6.2.4

Review the functioning of the street system as part of the Capital Improvement Program to identify problems and address them in a timely manner. (A-2)

Circulation: Policy 6.2.5

Design roadways, monitor traffic flow, and employ traffic control measures (e.g. signalization, access control, exclusive right and left turn-turn lanes, lane striping, and signage) to ensure City streets and roads continue to function safely within our Level of Service standards.

Circulation: Policy 6.2.6

Improve intersection operations by modifying signal timing at intersections and coordinating with other signals, as appropriate.

Circulation: Policy 6.2.7

Install new signals as warranted.

Circulation: Goal 6.3

Provide a safe circulation system

Circulation: Policy 6.3.1

Promote the principle that streets have multiple uses and users, and protect the safety of all users.

Circulation: Policy 6.3.2

Discourage high speeds and through traffic on local streets through traffic control device such as signage, speed bumps, etc. as acceptable by the local neighborhood. (C-2 and C-3)

Circulation: Policy 6.3.3

Require that all City streets be constructed in accordance with the Circulation Plan (Figure C-2) and the standards established by the Development Services Director.

Circulation: Policy 6.3.4

Require appropriate right-of-way dedications of all new developments to facilitate construction of roadways shown on the Circulation Plan. (LU-1)

Circulation: Policy 6.3.5

Limit direct access from adjacent private properties to arterials to maintain an efficient and desirable quality of traffic flow. (LU-1)

Circulation: Policy 6.3.6

Locate new development and their access points in such a way that traffic is not encouraged to utilize local residential streets and alleys. (LU-1)

Circulation: Policy 6.3.7

Require that adequate access be provided to all developments in the City including secondary access to facilitate emergency access and egress (LU-1).

Circulation: Goal 6.4

Minimize the impact of roadways on adjacent land uses and ensure compatibility between land uses and highway facilities to the extent possible.

Circulation: Policy 6.4.1

Work with Caltrans to ensure that construction of new facilities includes appropriate sound walls or other mitigating noise barriers to reduce noise impacts on adjacent land uses. (C-1)

Circulation: Policy 6.4.2

Require, wherever possible, a buffer zone between residential land uses and highway facilities. (LU-1)

Circulation: Policy 6.4.3

Continue to participate in forums involving the various governmental agencies such as Caltrans, SANBAG, SCAG, and the County that are intended to evaluate and propose solutions to regional transportation problems.

Circulation: Policy 6.4.4

Design developments within designated and eligible scenic highway corridors to balance the objectives of maintaining scenic resources with accommodating compatible land uses. (LU-1)

Circulation: Policy 6.4.5

Encourage joint efforts among federal, state, county, and City agencies and citizen groups to ensure compatible development within scenic corridors.

Circulation: Policy 6.4.6

Impose conditions on development within scenic highway corridors requiring dedication of scenic easements consistent with the Scenic Highways Plan, when it is necessary to preserve unique or special visual features. (LU-1)

Circulation: Policy 6.4.7

Utilize contour grading and slope rounding to gradually transition graded road slopes into a natural configuration consistent with the topography of the areas within scenic highway corridors. (LU-1)

Circulation: Policy 6.4.8

Develop appropriate protection measures along routes frequently used by trucks to minimize noise impacts to sensitive land uses including but not limited to residences, hospitals, schools, parks, daycare facilities, libraries, and similar uses. (LU-1)

Circulation: Goal 6.5

Develop a transportation system that reduces conflicts between commercial trucking, private/public transportation, and land uses.

Circulation: Policy 6.5.1

Provide designated truck routes for use by commercial/industrial trucking that minimize impacts on local traffic and neighborhoods.

Circulation: Policy 6.5.2

Continue to regulate on-street parking of trucks to prevent truck parking on residential streets or in other locations where they are incompatible with adjacent land uses. The use of signs, restricted parking, limited parking times, and the posting of "no overnight" parking signs are mechanisms that can be employed depending upon the specific needs of the affected area.

Circulation: Policy 6.5.3

Prepare neighborhood protection plans for areas of the City where heavy vehicle traffic or parking becomes a significant enforcement problem. (C-2)

Circulation: Policy 6.5.4

Require that on-site loading areas minimize interference of truck loading activities with efficient traffic circulation on adjacent roadways. (LU-1)

Circulation: Goal 6.6

Promote a network of multi-modal transportation facilities that are safe, efficient, and connected to various points of the City and the region.

Circulation: Policy 6.6.1

Support the efforts of regional, state, and federal agencies to provide additional local and express bus service in the City.

Circulation: Policy 6.6.2

Create a partnership with Omnitrans to identify public transportation infrastructure needs that improve mobility. In cooperation with Omnitrans, require new development to provide transit facilities, such as bus shelters and turnouts, as necessary and warranted by the scale of the development. (LU-1)

Circulation: Policy 6.6.3

Ensure accessibility to public transportation for seniors and persons with disabilities.

Circulation: Policy 6.6.4

In cooperation with Omnitrans, explore methods to improve the use, speed, and efficiency for transit services. These methods might include dedicated or priority lanes/signals, reduced parking standards for selected core areas, and incorporating Intelligent Transportation System architecture.

Circulation: Policy 6.6.5

Support and encourage the provision of a range of paratransit opportunities to complement bus and rail service for specialized transit needs.

Circulation: Policy 6.6.6

Encourage measures that will reduce the number of vehicle-miles traveled during peak periods, including the following examples of these types of measures:

- Incentives for car-pooling and vanpooling.
- Preferential parking for car-pools and vanpools.
- An adequate, safe, and interconnected system of pedestrian and bicycle paths.
- Conveniently located bus stops with shelters that are connected to pedestrian/bicycle paths. (A-1)

Circulation: Policy 6.6.8

Promote the use of car-pools and vanpools by providing safe, convenient park-and-ride facilities.

Circulation: Policy 6.6.9

Work with Omnitrans to create transit corridors, such as the one currently being explored on E Street linking CSUSB to Hospitality Lane, to increase transit ridership, reduce traffic congestion, and improve air quality.

Circulation: Policy 6.6.10

Consider the provision of incentives, such as reduced parking standards and density/intensity bonuses, to those projects near transit stops that include transit-friendly uses such as child care, convenience retail, and housing.

Circulation: Goal 6.7

Work with the railroads and other public agencies to develop and maintain railway facilities that minimize the impacts on adjacent land uses.

Circulation: Policy 6.7.1

Accommodate railroad services that allow for the movement of people and goods while minimizing their impact on adjacent land uses.

Circulation: Policy 6.7.2

Coordinate with SANBAG, SCAG, the County and other regional, state or federal agencies and the railroads regarding plans for the provision of passenger, commuter, and high-speed rail service.

Circulation: Policy 6.7.3

Encourage the provision of a buffer between residential land uses and railway facilities and encourage the construction of sound walls or other mitigating noise barriers between railway facilities and adjacent land uses.

Circulation: Policy 6.7.4

Identify existing and future high volume at-grade railroad crossings and pursue available sources of funding (e.g., California Public Utilities Commission) to implement grade separations where appropriate. (A-3)

Circulation: Goal 6.8

Support the safe operation of aviation and heliport facilities within and in proximity to the City.

Circulation: Policy 6.8.1

Work with the San Bernardino International Airport Authority (SBIAA) in the preparation of the Airport Master Plan and Comprehensive Land Use Plan to ensure the City's interests are foremost in the improvement of the airport.

Circulation: Policy 6.8.2

Coordinate with surrounding cities, the IVDA, and regional agencies to ensure that access to the San Bernardino International Airport is provided and maintained in a manner that minimizes traffic impacts to the City of San Bernardino.

Circulation: Policy 6.8.3

Work with the Federal Aviation Administration to ensure that the existing or new Heliports within San Bernardino operate in a safe manner and minimize impacts on adjacent properties.

Circulation: Goal 6.9

Achieve a balance between parking supply and demand.

Circulation: Policy 6.9.1

Ensure that developments provide an adequate supply of parking to meet its needs either on-site or within close proximity. (LU-1)

Circulation: Policy 6.9.2

Study the parking standards in the Development Code to determine if adequate flexibility is available to accommodate desirable situations, such as shared parking, Corridor Improvement actions, or transit oriented developments. (A-1)

Circulation: Policy 6.9.3

Continue to expand the supply of public parking in off- street parking facilities in downtown San Bernardino.

Circulation: Policy 6.9.4

Continue to provide an in-lieu parking fee option for developments in the Downtown area to satisfy all or part of their parking requirement through the payment of an in-lieu fee which will be utilized to provide parking in consolidated public parking facilities.

Circulation: Policy 6.9.5

Require that new developments submit a parking demand analysis to the City Engineer for review and approval whenever a proposal is made to provide less than the full code requirement of parking. (LU-1)

Circulation: Policy 6.9.6

Develop parking and traffic control plans for those neighborhoods adversely impacted by spillover parking and traffic. (C-3)

Parks, Recreation, and Trails Element: Goal 8.3

Develop a well-designed system of interconnected multi-purpose trails, bikeways, and pedestrian paths.

Parks, Recreation, and Trails Element: Policy 8.3.1

Work cooperatively with appropriate regional agencies to facilitate development of interconnected trails that tie into major activity areas. (PRT-6)

Parks, Recreation, and Trails Element: Policy 8.3.2

Establish a multi-purpose trail system, as shown on Figure PRT-2, along the foothills of the San Bernardino Mountains, Santa Ana River, Cajon and Lytle Creeks, and interconnecting linkages in collaboration with the

U.S. Forest Service, County of San Bernardino, City of Highland, Loma Linda, and other adjacent communities. (PRT-1)

Parks, Recreation, and Trails Element: Policy 8.3.3

Establish a recreational greenbelt system linking the river and drainage corridors with the mountains. (PRT-1)

Parks, Recreation, and Trails Element: Policy 8.3.4

All new developments on designated routes, as shown on Figure PRT-2, shall provide bicycle and pedestrian routes linked to adjacent facilities. (LU-1)

Parks

, Recreation, and Trails Element: Policy 8.3.5

Provide routes accessible for disabled persons that link public facilities and commercial areas to residential neighborhoods. (PRT-1)

Parks, Recreation, and Trails Element: Policy 8.3.6

Adequate and secure bicycle storage facilities shall be provided for new institutional and non-residential development. (PRT-1 and LU-1)

Parks, Recreation, and Trails Element: Policy 8.3.7

Provide bicycle racks in public facilities and in activity centers. (PRT-1 and LU-1)

Parks, Recreation, and Trails Element: Policy 8.3.8

Install sidewalks and wheelchair ramps in existing neighborhoods. (PRT-1)

Parks, Recreation, and Trails Element: Policy 8.3.9

Separate bikeway and trail systems from traffic and roadways wherever possible. (PRT-1)

Parks, Recreation, and Trails Element: Policy 8.3.10

Provide clear separation of hikers, joggers, and equestrians where possible. (PRT-1)

Parks, Recreation, and Trails Element: Policy 8.3.11

Seek the use of easements and rights-of-way from owners and continue to negotiate agreements for the use of utility easements, flood controls channels, and railroad rights-of-way to expand the park and trail system. (PRT-1 and PRT-6)

Parks, Recreation, and Trails Element: Policy 8.3.12

Incorporate the following features in multi-purpose trails, bike routes, and pedestrian paths:

- a. Special paving or markings at intersections;
- b. Clear and unobstructed signing and trail/lane markings; Improved signal phasing;
- c. Vehicular turning restrictions at intersections;
- d. Hearing impaired cross walk signals;
- e. Trees to provide shade;
- f. Safe and well lighted rest areas; and
- g. Coordinated street furniture including signs, trash receptacles, newspaper stands, and drinking fountains. (PRT-1 and CD-1)

Parks, Recreation, and Trails Element: Goal 8.4

Provide adequate funding for parkland and trails acquisition, improvements, maintenance, and programs.

Parks, Recreation, and Trails Element: Policy 8.4.1

Pursue the acquisition of surplus federal, state, and local lands to meet present and future recreation and community service needs. (PRT-2 and PRT-6)

Parks, Recreation, and Trails Element: Policy 8.4.2

Continue to require developers of residential subdivisions to provide fee contributions based on the valuation of the units to fund parkland acquisition and improvements. (LU-1)

Parks, Recreation, and Trails Element: Policy 8.4.3

Grant Quimby fee waivers only when usable parklands are received and when such waivers are determined to be in the best interest of City residents as certified by the Mayor and Common Council on recommendation of the Parks, Recreation and Community Services Department. (PRT-1 and LU-1)

Parks, Recreation, and Trails Element: Policy 8.4.4

Continue and expand mechanisms by which the City may accept gifts and dedications of parks, trails, open space, and facilities. (PRT-2)

Parks, Recreation, and Trails Element: Policy 8.4.5

Consider the use of special taxes, sale of bonds, or assessment districts for park and trail development and maintenance. (PRT-2)

Parks, Recreation, and Trails Element: Policy 8.4.6

Continue to provide financial support, including user fees and in-lieu fees, for summer lunch, playground, swimming pool programs and recreational facilities, and other appropriate programs. (PRT-2 and PRT-3)

Parks, Recreation, and Trails Element: Policy 8.4.7

Installation and/or replacement of the recreational facilities and equipment and the bikeway and trail system shall be carried out as part of the City's Capital Improvement Program. (A-2)

City of San Bernardino Vehicle Miles Traveled (VMT) Guidelines

The City of San Bernardino's Traffic Impact Analysis Guidelines (August 2020) provides VMT methodology and screening for determining a project significant transportation impact under the CEQA process within the City's jurisdiction.

The City of San Bernardino Traffic Impact Analysis Guidelines (August 2020) recommends VMT thresholds set to the City of San Bernardino General Plan Buildout VMT per service population. A project would result in a significant project-generated VMT impact if either of the following conditions are satisfied:

1. The baseline project-generated VMT per service population exceeds the City of San Bernardino General Plan Buildout VMT per service population, or
2. The cumulative project-generated VMT per service population exceeds the City of San Bernardino General Plan Buildout VMT per service population

4.18.2.3 Regional

Southern California Association of Governments (SCAG)

SCAG recently approved the 2020-2045 RTP/SCS, titled "Connect SoCal" which has expanded goals beyond the 2016-2040 plan outlined above. The plan charts a path toward a more mobile, sustainable and prosperous region by making key connections: between transportation networks, between planning strategies and between the people whose collaboration can make plans a reality.¹

1. Encourage regional economic prosperity and global competitiveness
2. Improve mobility, accessibility, reliability, and travel safety for people and goods
3. Enhance the preservation, security, and resilience of the regional transportation system
4. Increase person and goods movement and travel choices within the transportation system
5. Reduce greenhouse gas emissions and improve air quality
6. Support healthy and equitable communities

¹ https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plan_0.pdf?1606001176

7. Adapt to a changing climate and support an integrated regional development pattern and transportation network
8. Leverage new transportation technologies and data-driven solutions that result in more efficient travel
9. Encourage development of diverse housing types in areas that are supported by multiple transportation options
10. Promote conservation of natural and agricultural lands and restoration of habitats

SCAG's Connect SoCal document is guided by the following key laws and requirements:

- Developing a Regional Transportation Plan (RTP) - SCAG is required by federal law to prepare and update a long-range RTP (23 U.S.C. §134 et seq.)
- Keeping up with Clean Air Act Requirements - With respect to air quality, most areas within the SCAG region have been designated as nonattainment or maintenance areas for one or more transportation related criteria pollutants. Pursuant to the federal Clean Air Act, SCAG's 2020 RTP/SCS is required to meet all federal transportation conformity requirements, including regional emissions analysis, financial constraint, timely implementation of transportation control measures, and interagency consultation and public involvement (42 U.S.C. §7401 et seq.).
- Monitoring System Performance - With the passage of the 'Moving Ahead for Progress in the 21st Century' (MAP-21) federal transportation authorization legislation in 2012, transportation system performance planning and monitoring also became a federal mandate. This commitment to a national performance management and reporting system was further solidified with the passage of the subsequent federal transportation authorization package (the 'FAST Act') in 2015
- Developing a Sustainable Communities Strategy - California State law also imposes additional requirements. For example, state law specifies that, "The plan shall be action-oriented and pragmatic, considering both the short-term and long-term future" (Government Code §65080(a)). California Senate Bill 375, codified in 2008 in Government Code §65080 (b)(2)(B), also requires that the RTP include a sustainable communities strategy or "SCS", which outlines growth strategies for land use and transportation and help reduce the state's greenhouse gas emissions from cars and light duty trucks.
- Hitting Specific Targets for Greenhouse Gas Reduction - For the SCAG region, the California Air Resources Board (ARB) has set greenhouse gas reduction targets at eight percent below 2005 per capita emissions levels by 2020, and 19 percent below 2005 per capita emissions levels by 2035.

San Bernardino County Congestion Management Program (CMP)

The San Bernardino County Congestion Management Program (CMP) was established in 1991 to reduce traffic congestion and to provide a mechanism for coordinating land use and development decisions. Compliance with CMP requirements ensures a city's eligibility to compete for State gas tax funds for local transportation projects.

The San Bernardino County CMP determines the geographic area for a traffic study with the following criteria:

"At a minimum, the study area must include all freeway links with 100 or more peak-hour project trips (two-way) and other CMP roadways with 50 or more peak-hour project trips (two-way). Within the defined study area, all "key intersections," as listed in the most current CMP, must be analyzed. Key intersections represent intersections of CMP roadways plus those additional

intersections recognized by local jurisdictions and/or SANBAG to be important to mobility on CMP roadways”.

4.18.2.4 State

State and local laws, regulations, plans, or guidelines that are applicable to the proposed project are summarized below.

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 tasks the Governor’s Office of Planning and Research (OPR) 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 greenhouse gas (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 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.

Senate Bill 743

On September 27, 2013, Senate Bill (SB) 743 was signed into law. The legislature found that with the adoption of the Sustainable Communities and Climate Protection Act of 2008 (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 emissions, as required by AB 32. Additionally, AB 1358, described above, requires local governments to plan for a balanced, multimodal transportation network that meets the needs of all users.

SB 743 started a process that could fundamentally change transportation impact analysis as part of CEQA compliance. These changes will include the elimination of auto delay, LOS, and similar measures of vehicular capacity or traffic congestion as the basis for determining whether a project will have a significant impact on the environment 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” (Public Resources Code § 21099[b][1]). On January 20, 2016, the Governor’s Office of Planning and Research released revisions to its proposed CEQA guidelines for the implementation of SB743. Final review and rulemaking for the new guidelines are targeted for early 2017. Once the guidelines are prepared and certified, “automobile delay, as described solely by level of service of similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment” (Public Resources Code § 21099[b][2]). Certification and implementation of the guidelines is expected to occur in 2019. Because these revised CEQA Guidelines have not yet taken effect, automobile delay based on level of service is still being utilized throughout the State to determine the traffic impacts of a proposed project. In addition, once certified by the Natural Resources Agency, the revised Guidelines will not take effect until July 1, 2020.

California Department of Transportation

Caltrans, the California Department of Transportation, is charged with planning and maintaining state routes, highways, and freeways. Caltrans is the owner/operator for I-210 in the study area. Caltrans has developed transportation impact analysis guidelines for use when assessing state facilities, “Guide for the Preparation of Traffic Impact Studies.” Caltrans also oversees the State Transportation Improvement Program (STIP) which is a multi-year capital improvement program for transportation projects on and off the State Highway System, funded with revenues from the Transportation Investment Fund and other funding sources. STIP programming generally occurs every two years. The programming cycle begins with the release of a proposed fund estimate in July of odd-numbered years, followed by California Transportation Commission (CTC) adoption of the fund estimate in August (odd years). The fund estimate serves to identify the amount of new funds available for the programming of transportation projects. Once the fund estimate is adopted, Caltrans and the regional planning agencies prepare transportation improvement plans for submittal to the CTC by December 15th (odd years). Caltrans prepares the Interregional Transportation Improvement Program (ITIP) and regional agencies prepare the Regional Transportation Improvement Plans (RTIPs). Public hearings are held in January (even years) in both northern and southern California. The STIP is adopted by the CTC by April (even years).

AB 1358 (Assembly Bill 1358 Complete Streets Act of 2008) by planning for a balanced multi-modal transportation network that meets the needs of all users of streets, roads, and highways, including motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation.

4.18.3 Environmental Setting: Transportation

4.18.3.1 Existing Traffic Conditions / Street System

Regional access to the site is provided primarily by the Interstate 215 (I-215) Freeway, located approximately 2 miles to the west of the Specific Plan area. In addition, the I-10 Freeway is located approximately 3 miles to the south of the project. State Route 210 (SR-210) is oriented in an east-west direction approximately 2.5 miles to the north of the Specific Plan area, and then turns southward and is oriented in a north-south direction adjacent to the Specific Plan eastern boundary.

The following provides a description of the roadways surrounding the Specific Plan area.

Waterman Avenue is a north-south roadway that provides two to three lanes in each direction, with either a raised median or a center two-way left-turn lane in the project vicinity. The speed limit is 40 miles per hour (MPH) and on-street parking is prohibited on both sides. Waterman Avenue is designated on the City of San Bernardino's Circulation Plan as a Major Arterial.

Tippecanoe Avenue is a north-south roadway that provides two to three lanes in each direction, with either a raised median or a center two-way left-turn lane. Tippecanoe Avenue will form the westernmost boundary of the Specific Plan area. The speed limit ranges from 30 to 45 MPH and on-street parking is prohibited on both sides. Tippecanoe Avenue is designated on the City of San Bernardino's Circulation Plan as a Secondary Arterial north of 3rd Street and a Major Arterial south of 3rd Street; Tippecanoe Avenue is designated on the City of Highland's Circulation Element as a Secondary Highway.

Del Rosa Drive is a north-south roadway that provides one to two lanes in each direction, with either a raised median or a center two-way left-turn lane in the project vicinity. Del Rosa Drive extends through and beyond the Specific Plan boundary in both the north and south directions. The speed limit ranges from 35 to 45 MPH, with a 25-MPH school zone from Baseline Street to 6th Street. Del Rosa Drive is designated on the City of San Bernardino's Circulation Plan as a Major Arterial and is designated on the City of Highland's Circulation Element as a Secondary Highway. However, due to the development of the Sterling Natural Resource Center and the presence of two new schools in the area, the cities agreed to minimize north-south truck traffic on Del Rosa Drive and shift as much north-south traffic to Sterling, Victoria and Palm

Sterling Avenue is a north-south roadway that provides two lanes in each direction, with a center two-way left-turn lane in the project vicinity. Sterling Avenue starts at 3rd Street, and extends northward through and beyond the Specific Plan boundary. The speed limit is 40 MPH. Sterling Avenue is designated on the City of San Bernardino's Circulation Plan as a Major Arterial and is designated on the City of Highland's Circulation Element as a Major Highway.

Victoria Avenue is a north-south roadway that provides two lanes in each direction, with a center two-way left-turn lane in the project vicinity. Victoria Avenue extends through and beyond the Specific Plan boundary in both the north and south directions. The speed limit ranges from 40 to 45 MPH and on-street parking is prohibited on both sides. Victoria Avenue is designated on the City of San Bernardino's Circulation Plan as a Secondary Arterial and is designated on the City of Highland's Circulation Element as a Major Highway.

Central Avenue is a north-south undivided roadway that provides one lane in each direction. Central Avenue starts at 3rd Street and extends northward through and beyond the Specific Plan boundary. On-street parking is permitted on both sides. Central Avenue is designated on the City of San Bernardino's Circulation Plan as a Collector and is designated on the City of Highland's Circulation Element as a Collector Street.

Palm Avenue is a north-south roadway that provides two lanes in each direction, with either a raised median or a center two-way left-turn lane in the project vicinity. Palm Avenue extends through and beyond Specific Plan boundary in both the north and south directions. The speed limit is 45 MPH. Palm Avenue is designated on the City of San Bernardino's Circulation Plan as a Major Arterial and in the City of Highland's Circulation Element as a Major Highway north of

Pacific Street and between Base Line Street and 3rd Street; a Special Collector Street between Pacific Street and Base Line Street; and a Primary Arterial south of 3rd Street.

Church Avenue is a north-south undivided roadway that provides one lane in each direction. Church Avenue starts at 5th Street and extends northward to Pacific Street. The speed limit ranges from 35 MPH. Church Avenue is designated on the City of Highland's Circulation Element as a Collector Street.

6th Street is an east-west undivided roadway that provides one travel lane in each direction. 6th Street will form the northern boundary of the Specific Plan area from Tippecanoe Avenue to Central Avenue. The posted speed limit is 40 MPH, with a 25-MPH school zone from Tippecanoe Avenue to Del Rosa Drive. 6th Street is designated as a Collector Street on the City of San Bernardino's Circulation Plan and on the City of Highland's Circulation Element.

5th Street is an east-west roadway that provides one to two lanes in each direction in the project vicinity, with a center two-way left-turn lane in some sections. 5th Street provides a direct connection to both the I-215 Freeway to the west and the SR-210 Freeway to the east. 5th Street will traverse the entire length of the Specific Plan area and will have development on both sides of the street. The speed limit ranges from 40 to 45 MPH, with a 25-MPH school zone to the east of Waterman Avenue. 5th Street is designated on the City of San Bernardino's Circulation Plan as a Major Arterial and in the City of Highland's Circulation Element as a Major Highway west of Palm Avenue within the City's boundary and as a Primary Arterial east of Palm Avenue.

3rd Street is an east-west roadway that provides two lanes in each direction, with a center two-way left-turn lane. The speed limit ranges from 45 to 50 MPH. 3rd Street is designated on the City of San Bernardino's Circulation Plan as a Major Arterial and is designated on the City of Highland's Circulation Element as a Primary Arterial. 3rd Street will form the southern boundary of the Specific Plan area from Tippecanoe Avenue to its eastern terminus.

3rd Street currently dead-ends southwest of the intersection of 5th Street at Church Avenue, in the City of Highland. The City has approved an improvement project that will connect 3rd Street to 5th Street to the east and west of Church Avenue. The future connection to the east of Church Avenue will allow eastbound traffic on 3rd Street to merge onto eastbound 5th Street. The connection to the west of Church Avenue will allow limited access from 5th Street to westbound 3rd Street. The timing for completion of this improvement is uncertain, but expected in the near future.

4.18.3.2 Existing Alternative Modes of Transportation

Existing Transit Service

Transit service to the project area is provided by OmniTrans, which serves the Cities of San Bernardino, Highland and other surrounding cities. Currently only Route 15 travels on any of the streets within the Specific Plan area.

OmniTrans Route 15 operates between the City of Redlands and the City of Fontana, traveling through the Specific Plan area along Tippecanoe Avenue, Del Rosa Avenue, Central Avenue, and Palm Avenue. Key stops along Route 15 include the San Bernardino County Court Building, Redlands Mall, San Bernardino Stadium, San Bernardino Valley College, Fontana Metrolink, and the San Bernardino Transit Center. At the San Bernardino Transit Center, passengers can

transfer to other OmniTrans routes, as well as to Riverside Transit (RTA), Mountain Transit, Pass Transit and Victor Valley Transit Authority (VVTA) routes, or to Metrolink.

Route 15 operates on weekdays from 6:40 AM to 10:40 PM with approximately 30-minute headways (the time between bus arrivals), and on Saturdays and Sundays from approximately 6:40 AM to 7:25 PM with approximately 1-hour headways.

The OmniTrans bus stops located closest to the Specific Plan area are as follows:

- Tippecanoe Avenue at 3rd Street
- Del Rosa Drive at 3rd Street
- Del Rosa Drive at 6th Street
- Central Avenue at 5th Street
- Palm Avenue at 5th Street

Existing Bikeways

The AGSP planning area contains existing bike lanes as follows:

- Class II Bike Lanes are intended to delineate the rights-of-way assigned to bicyclists and motorists, and to provide for more predictable movements of each. Class II bike lanes are located at the following locations:
 - 3rd Street from Palm Avenue to Victoria Avenue
 - 5th Street from I-210 to Tippecanoe Avenue
 - Palm Avenue (whole of the planning area)
- Class III Bike Routes are considered shared facilities serving either to provide continuity to other bicycle facilities or to designate preferred routes through high-demand corridors. Such bikeways are designated using signage along the roadway without special street striping. Class III bike lanes are located at the following locations:
 - Sterling Avenue from 5th Street to 6th Street
 - Victoria Avenue from 5th Street to 6th Street
 - Tippecanoe from 5th Street to 6th Street

Planned Trail Systems

The City of San Bernardino has expressed the desire to develop a Regional Multi-Purpose Trail along City Creek Bypass Channel, which traverses the AGSP Planning area from east to west. A multi-purpose trail would serve bicycle, pedestrian, and in some cases, equestrian users and provide regional connections. This trail is shown on Figure PRT-2, located in the City of San Bernardino General Plan, and has not yet been fully developed to serve as a Regional Multi-Purpose Trail.

4.18.3.3 Existing Traffic Volumes

Intersection and roadway traffic volumes at the study locations were obtained from traffic studies for other projects in the vicinity, where available; and were collected at the study locations where counts were not available. The traffic information provided in the following text is abstracted from Airport Gateway Specific Plan Traffic Impact Study (TIS) prepared by Kimley-Horn in November 2020. A copy of this document is provided in Appendix 11a of Volume 2 of this Draft PEIR.

The traffic counts included vehicle classifications for passenger cars, 2-axle trucks, 3-axle trucks, and 4+-axle trucks. The vehicle classification data was used to develop Passenger Car Equiva-

lent (PCE) volumes by applying a PCE factor of 2.0 PCE for 2-axle trucks, 2.5 PCE for 3-axle trucks, and 3.0 PCE for 4+-axle trucks. For locations without vehicle classification data, the percentage of trucks was estimated from classification counts at surrounding locations.

Existing lane configurations and traffic control at the study intersections are shown on Figures 4.18-1 through 4.18-3. Existing morning and evening peak hour intersection volumes are presented on Figures 4.18-4 through 4.18-6. Daily roadway volumes are presented on Figure 4.18-7. The existing volumes on Figures 4.18-4 through 4.18-7 reflect the PCE factors described above.

4.18.3.4 Existing Operating Conditions

Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for the morning and evening peak hours using the analysis procedures and assumptions described previously in this report. The results are shown on Table 1 (of the TIS). Review of this table indicates that all study area intersections currently operate at an acceptable Level of Service in both peak hours, with the exception of the following intersections:

- #20 – Sterling Avenue at 6th Street (unsignalized): AM – LOS F; PM – LOS E
- #41 – Central Avenue at 3rd Street (unsignalized): PM – LOS E

Copies of the intersection analysis worksheets are provided in the TIS Appendices.

These two intersections are unsignalized. As described in the methodology section, the Level of Service for unsignalized intersections is based on the average vehicle delay for the intersection approach or movement that has the worst (highest) delay. In the case of these intersections, vehicles on the side street stop-controlled movements (6th Street at intersection #20, and Central Avenue at intersection #41) experience delay as they wait for a gap in the through traffic on the main arterial. Under current conditions, neither intersection would warrant a signal based on the peak hour volumes.

Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted based on the roadway capacities presented previously in this report. The results are shown on Table 4.18-1, below. Review of this table indicates that the following study roadway segments are currently operating at an unacceptable Level of Service:

- Tippecanoe Avenue: Mill Street to Orange Show Road / San Bernardino Avenue (LOS D)
- Del Rosa Drive: Highland Avenue to Pacific Street (LOS F)

**Table 4.18-1
SUMMARY OF ROADWAY SEGMENT ANALYSIS
EXISTING CONDITIONS**

Roadway	Segment	Jurisdiction	Existing Configuration	LOS E Capacity ¹	Existing ADT ²	V/C	LOS
Waterman Avenue	Baseline Street to 5th Street	SB	4 Lanes Divided	40,000	25,741	0.644	B
	5th Street to 3rd Street	SB	6 Lanes Divided	60,000	27,528	0.459	A
Tippecanoe Avenue	Baseline Street to 6th Street	SB / H	4 Lanes Undivided	30,000	12,006	0.400	A
	6th Street to 3rd Street	SB / H	4 Lanes Undivided	30,000	14,330	0.478	A
	3rd Street to Mill Street	SB	6 Lanes Divided	60,000	28,362	0.473	A
	Mill Street to Orange Show Road / San Bernardino Avenue	SB	4 Lanes Divided	40,000	32,591	0.815	D
	Orange Show Road/ San Bernardino Avenue to Harriman Place / I-10 WB Ramps	SB	6 Lanes Divided	60,000	25,471	0.425	A
Del Rosa Drive	SR-210 EB Ramps to Highland Avenue	SB	4 Lanes Divided	40,000	23,780	0.595	A
	Highland Avenue to Pacific Street	SB	2 Lanes Undivided	12,000	17,645	1.470	F
	Pacific Street to Baseline Street	SB / H	4 Lanes Undivided	30,000	12,318	0.411	A
	Baseline Street to 9th Street	SB / H	4 Lanes Divided	40,000	9,963	0.249	A
	9th Street to 6th Street	SB	4 Lanes Divided	40,000	9,871	0.247	A
	6th Street to 3rd Street	SB / H	4 Lanes Undivided	30,000	9,576	0.319	A
Sterling Avenue	Base Line to 9th Street	H	4 Lanes Divided	40,000	13,368	0.334	A
	9th Street to 6th Street	H	4 Lanes Divided	40,000	10,609	0.265	A
	6th Street to 3rd Street	SB / H	4 Lanes Divided	40,000	6,984	0.185	A
Victoria Avenue	Highland Avenue to Pacific Street	H	4 Lanes Divided	40,000	12,184	0.305	A
	Pacific Street to Base Line	H	4 Lanes Divided	40,000	14,431	0.361	A
	Base Line to 9th Street	H	4 Lanes Undivided	30,000	11,210	0.374	A
	9th Street to 6th Street	H	4 Lanes Undivided	30,000	8,368	0.279	A
	6th Street to 3rd Street	SB / H	4 Lanes Undivided	30,000	8,368	0.279	A

Roadway	Segment	Jurisdiction	Existing Configuration	LOS E Capacity ¹	Existing ADT ²	V/C	LOS
6th Street	Tippecanoe Avenue to Del Rosa Drive	SB / H	2 Lanes Undivided	10,000	3,249	0.325	A
	Del Rosa Drive to Sterling Avenue	H	2 Lanes Undivided	10,000	4,714	0.471	A
	Sterling Avenue to Victoria Avenue	SB / H	2 Lanes Undivided	10,000	3,519	0.352	A
	Victoria Avenue to Central Avenue	H	2 Lanes Undivided	10,000	4,047	0.405	A
5th Street	I-215 NB Ramps to E Street	SB	4 Lanes Divided	40,000	30,975	0.774	C
	E Street to Waterman Avenue	SB	4 Lanes Divided	40,000	20,083	0.502	A
	Waterman Avenue to Tippecanoe Avenue	SB	2 Lanes Undivided	15,000	9,167	0.611	B
	Tippecanoe Avenue to Del Rosa Drive	H	2 Lanes Undivided	15,000	8,725	0.582	A
	Del Rosa Drive to Sterling Avenue	SB / H	4 Lanes Undivided	40,000	5,595	0.140	A
	Sterling Avenue to Victoria Avenue	SB / H	2 Lanes Undivided	15,000	3,911	0.261	A
	Victoria Avenue to Central Avenue	H	4 Lane Divided	40,000	9,939	0.248	A
	Central Avenue to Palm Avenue	H	4 Lane Divided	40,000	9,939	0.248	A
	Palm Avenue to SR-210 EB Ramps	H	4 Lanes Divided	40,000	26,098	0.652	B
3rd Street	Waterman Avenue to Tippecanoe Avenue	SB	4 Lanes Divided	40,000	10,460	0.262	A
	Tippecanoe Avenue to Del Rosa Drive	SB / H	4 Lanes Divided	40,000	15,620	0.391	A
	Del Rosa Drive to Sterling Avenue	SB / H	4 Lanes Divided	40,000	18,143	0.454	A
	Sterling Avenue to Victoria Avenue	SB	4 Lanes Undivided	40,000	13,457	0.336	A
	Victoria Avenue to Palm Avenue	SB / H	4 Lanes Divided	40,000	10,714	0.268	A

Notes: ¹ Source: City of San Bernardino General Plan Update (2005)

² Existing daily traffic volumes include passenger car equivalent (PCE) factors for trucks: 2-axle - 2.0; 3-axle - 2.5; 4+-axle - 3.0

LOS = Level of Service ADT = Average Daily Traffic V/C = Volume-to-Capacity

Jurisdiction: SB = San Bernardino, H = Highland, SB / H = Portions of the roadway segment are in both cities

4.18.4 Significance Threshold Criteria

Transportation issues have recently undergone a major change under the CEQA evaluation process. Instead of focusing on Levels of Service (LOS, see Sub-section 4.18.2.2 for definitions used in this document) the State CEQA Guidelines are focusing vehicle miles traveled (VMT) as the focus of future transportation analysis. However, as important as it is to evaluate a proposed

project’s impact on future VMT, local jurisdictions still need a transportation analysis to analyze how a project will affect the flow of traffic on the affected vehicle circulation system, as well as alternative modes of transportation. This is necessary to ensure that a project contributes a “fair share” to needed circulation system improvements that may be needed regardless of whether a project manages its VMT by reducing it absolutely for the project area, or at least a relatively lower VMT than would have occurred under normal circumstances. The Cities of Highland and San Bernardino require LOS analyses to be completed and as such, a discussion of LOS under the proposed project when compared to existing conditions, etc. is provided in the discussions below.

The transportation impacts analyzed in the “Airport Gateway Specific Plan Traffic Impact Study” (TIS) prepared by Kimley Horn, Inc, provided as Appendix 11a of Volume 2 of this document, are based on quantitative LOS forecasts, not VMT. However, Kimley Horn, Inc also prepared a VMT analysis titled “Airport Gateway Specific Plan Vehicle Miles Traveled Analysis” (VMT Analysis) provided as Appendix 11b of Volume 2 of this document. A qualitative analysis of VMT impacts from the AGSP utilizing the City of San Bernardino and Highland adopted standards is provided in the analysis that follows. The CEQA Appendix G guidelines were modified to revised questions that need to be addressed. Accordingly, a project would have a potentially significant impact if it:

- TRAN-1 Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?
- TRAN-2 Conflict or be inconsistent with CEQA Guidelines para. 15064., subdivision (b)?
- TRAN-3 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- TRAN-4 Result in inadequate emergency access?

4.18.4.1 City of San Bernardino

The City of San Bernardino General Plan (SBGP) Circulation Element has been utilized for the following transportation and traffic system analysis. The SBGP establishes minimum Level of Service (LOS) standards, which require that City intersections operate at LOS D or better during the morning and evening peak house, and that roadway segments operate at LOS C or better. Traffic impacts at an intersection are considered to be significant when any of the following changes in the volume-to-capacity (V/C) ratio occurs between the “without project” and the “with project” conditions:

LOS Without Project	V/C Difference
C	> 0.0400
D	> 0.0200
E, F	> 0.0100

New development is required to mitigate impacts where the project results in a significant impact as shown above.

4.18.4.2 City of Highland

The Level of Service standard for intersections in the City of Highland is LOS D or better for peak hour operations and LOS C or better for roadway segments. Based on the City of Highland’s

Public Works Policies, Procedures, and Standards, Section 9.0 (Traffic), all intersection levels of service below “D” and all roadway segment levels of service below “C” shall be mitigated.

4.18.4.3 Caltrans

For State-controlled intersections, Caltrans’ Level of Service standards and impact criteria will apply. The Caltrans *Guide for the Preparation of Traffic Impact Studies* (2003) states that, “Caltrans endeavors to maintain a target LOS at the transition between LOS “C” and LOS “D” on State highway facilities. If an existing State highway facility is operating at less than the appropriate target LOS, the existing MOE (measure of effectiveness) should be maintained.

4.18.5 Methodology

The methodology utilized in this Subchapter of the PEIR is based on two approaches: first, making a level of service impact forecast for the two cities; and second, preparing a Vehicle Miles Traveled (VMT) impact forecast to comply with State requirements. The Traffic Impact Study was prepared by Kimley Horn and is provided as Appendix 11a in Volume 2 of this document.

4.18.6 Project Impacts

4.18.6.1 Project Traffic

Project Trip Generation

The AGSP would replace the land uses currently existing within the Specific Plan area with approximately 9.2 million square feet of Mixed Use Business Park uses, consisting of industrial warehouse, high-cube logistics warehouse, tech business park, and a small amount of commercial/retail uses. Trip generation estimates for the Airport Gateway Specific Plan project are based on daily and peak hour trip generation rates obtained from the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition). Based on the uses and intensities (expressed as floor area ratio, or FAR) allowed in the Specific Plan, the AGSP mix of uses assumed for this analysis and the associated ITE Land Use Category for each land use are as follows:

**Table 4.18-2
 LAND USE CATEGORIES**

Land Use	ITE Land Use Code	Quantity	Unit
Industrial Warehouse	150	6,310,472	Sq. Ft.
High-Cube Warehouse	154	1,352,244	Sq. Ft.
Research and Development	760	1,302,161	Sq. Ft.
Retail / Commercial	820	205,483	Sq. Ft.
Hotel	310	150	Room

Passenger vehicle and truck mix assumptions were applied to the warehouse and high cube components of the project, based on the City of Fontana Truck Trip Generation Study. Passenger car equivalent (PCE) factors were then applied to the truck types, based on number of axles (2.0 PCE for 2-axle trucks, 2.5 PCE for 3-axle trucks, and 3.0 PCE for 4+-axle trucks) to determine the total PCE trips to be generated by the project.

Trip credits were taken into account for the existing uses in the Specific Plan area that would be removed. For a conservative analysis, the trip generation estimates for the existing uses were reduced by 25%. A summary of existing land uses and the associated trip generation is provided on Table B-2 in *Appendix A* of the TIS.

The trip generation rates, truck mix, PCE factors, and the resulting trip generation estimates for the project are summarized on Table 4.18-3. The AGSP project is estimated to generate 30,972 net PCE trips on a daily basis, with 1,772 net PCE trips in the morning peak hour, and 2,220 net PCE trips in the evening peak hour. The net project trips, including the existing land use credits, were divided proportionately into smaller zones within the Specific Plan. The smaller zones were based on access to adjacent streets.

Trip Distribution and Assignment

Trip distribution assumptions for the project were developed taking into account the proposed Specific Plan uses, the roadway system serving the project area, and the routes to and from the freeway system for the Specific Plan area. The Specific Plan area was divided into smaller zones based on access to adjacent streets and modeled using the Vistro software. The internal project trip distribution and assignment were proportional to the land use intensities within the smaller zones. Separate distribution patterns were assumed for passenger car trips and truck trips. Project trucks are assumed to use 3rd Street or 5th Street to enter the warehouse developments. No truck entrances will be located on 6th Street. Passenger car entrances will be located on the north-south streets, where feasible, to minimize project traffic on 6th Street. Trip distribution assumptions are shown on Figure 4.18-8.

Trip distribution percentages were applied to the project trip generation to determine the project trips through each study intersection and on the study roadway segments. The resulting project-related peak hour volumes are shown on Figures 4.18-9 through 4.18-11. Daily roadway volumes are shown on Figure 4.18-12.

San Bernardino County Congestion Management Program

The following intersections in the vicinity of the Specific Plan area are listed as a key CMP intersection:

- #4 – Del Rosa Drive at Highland Avenue
- #7 – Victoria Avenue at Highland Avenue
- #12 – Del Rosa Drive at Baseline Street
- #14 – Victoria Avenue at Baseline Street
- #25 – E Street at 5th Street
- #27 – Waterman Avenue at 5th Street
- #29 – Del Rosa Drive at 5th Street
- #31 – Victoria Avenue at 5th Street
- #33 – Palm Avenue at 5th Street
- #38 – Del Rosa Drive at 3rd Street
- #40 – Victoria Avenue at 3rd Street
- #42 – Palm Avenue at 3rd Street
- #46 – Tippecanoe Avenue at Orange Show Road/San Bernardino Avenue

**Table 4.18-3
SUMMARY OF PROJECT TRIP GENERATION AIRPORT GATEWAY SPECIFIC PLAN**

TRIP GENERATION RATES ¹										
ITE Land Use	ITE Code	Unit	Daily	AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
Warehousing	150	KSF	1,740	0.131	0.039	0.170	0.051	0.139	0.190	
High-Cube Transload and Short-Term Storage	154	KSF	1.40	0.06	0.02	0.08	0.03	0.07	0.10	
Research and Development Center	760	KSF	11.26	0.32	0.11	0.42	0.07	0.42	0.49	
Shopping Center	820	KSF	37.75	0.58	0.36	0.94	1.83	1.98	3.81	
Hotel	310	Room	8.36	0.28	0.19	0.47	0.31	0.29	0.60	
PROJECT TRIP GENERATION										
Project Land Use	Quantity	Unit	Daily	AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
Warehousing	6,310.472	KSF	10,980	827	246	1,073	322	877	1,199	
High-Cube Transload and Short-Term Storage	1,352.244	KSF	1,893	84	24	108	38	97	135	
Research and Development Center	1,302.161	KSF	14,662	410	137	547	96	543	639	
Shopping Center	65.233	KSF	2,463	38	23	61	119	129	248	
Pass-by Trips	25%		-616	-10	-6	-16	-30	-32	-62	
Total Shopping Center Trips			1,847	28	17	45	89	97	186	
Hotel	150	Room	1,254	42	29	71	46	44	90	
Shopping Center (Additional)	140.250	KSF	5,294	82	50	132	257	278	535	
Pass-by Trips	25%		-1,324	-21	-13	-34	-64	-70	-134	
Total Shopping Center Trips			3,970	61	37	98	193	208	401	
Total Project Trips			34,606	1,452	490	1,942	784	1,866	2,650	
PASSENGER CAR EQUIVALENT (PCE) ADJUSTMENTS FOR WAREHOUSE USES										
Vehicle Type	Vehicle Mix ²	Daily Vehicles	PCE Factor ³	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
<i>Warehousing</i>										
Passenger Vehicles	79.57%	8,737	1.0	8,737	658	196	854	256	698	954
2-Axle Trucks	3.46%	380	2.0	760	57	17	74	22	61	83
3-Axle Trucks	4.64%	509	2.5	1,273	96	29	125	37	102	139
4+ Axle Trucks	12.33%	1,354	3.0	4,062	306	91	397	119	324	443
Total Truck PCE Trips				6,095	459	137	596	178	487	665
Total Warehousing PCE Trips				14,832	1,117	333	1,450	434	1,185	1,619
<i>High-Cube Transload and Short-Term Storage</i>										
Passenger Vehicles	51.0%	965	1.0	965	43	12	55	19	49	68
2-Axle Trucks	0.0%	0	2.0	0	0	0	0	0	0	0
3-Axle Trucks	0.0%	0	2.5	0	0	0	0	0	0	0
4+ Axle Trucks	49.0%	928	3.0	2,784	123	36	159	57	144	201
Total Truck PCE Trips				2,784	123	36	159	57	144	201
Total High-Cube Transload and Short-Term Storage PCE Trips				3,749	166	48	214	76	193	269
TOTAL SPECIFIC PLAN TRIPS										
Total Specific Plan Passenger Car Trips				31,435	1,242	428	1,670	699	1,639	2,338
Total Specific Plan Truck (PCE) Trips				8,879	582	173	755	235	631	866
Total Specific Plan Trips				40,314	1,824	601	2,425	934	2,270	3,204
TRIP GENERATION FOR EXISTING USES IN SPECIFIC PLAN AREA										
Existing Uses Trip Generation ⁴				9,342	358	295	653	450	534	984
Specific Plan Net New Trips				30,972	1,466	306	1,772	484	1,736	2,220
¹ Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 10 th Edition ² Source: Truck Trip Generation Study - City of Fontana, August 2003. ³ Source: City of San Bernardino Traffic Impact Study Guidelines, June 2015. ⁴ Source: PlaceWorks - See Table A, Appendix A PCE = Passenger Car Equivalent KSF = Thousand Square Feet										

These CMP key intersections were included as study intersections. The project's traffic contribution to these intersections was analyzed. The traffic analysis for the project is compliant with the San Bernardino County CMP requirements.

4.18.6.2 Existing Plus Project Conditions

The Existing Plus Project analysis scenario is a hypothetical scenario that assumes completion of the project and full absorption of the project traffic on the surrounding street network at the current time. The Existing Plus Project scenario is required by the California Environmental Quality Act (CEQA). Project-related traffic was added to the Existing traffic volumes. The Existing Plus Project traffic volumes at the study intersections are shown on Figures 4.18-13 through 4.18-15. Existing Plus Project daily roadway volumes are shown on Figure 4.18-16.

Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for the Existing Plus Project condition. The results are shown on Table 4 of the TIS. Copies of the intersection analysis worksheets are provided in *Appendix C* of the TIS.

Review of this table (Table 4, TIS) indicates that, with the addition of Project traffic, the following intersections would operate at an unacceptable Level of Service:

- #1 - Del Rosa Drive at SR-210 WB Ramps: AM – **LOS E**
- #20 - Sterling Avenue at 6th Street: AM – **LOS F**; PM – **LOS F**
- #21 - Victoria Avenue at 6th Street: PM – **LOS F**
- #33 - Palm Avenue at 5th Street: AM – **LOS E**; PM – **LOS F**
- #41 - Central Avenue at 3rd Street: PM – **LOS F**

Based on the impact criteria presented earlier in the report for the Cities of San Bernardino and Highland and for Caltrans, the Project impact at each of these intersections would be considered to be a significant project impact.

Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted for the Existing Plus Project condition, and the results are summarized on Table 5 of the TIS. Review of this table indicates that with the addition of Project traffic, the following roadway segments would operate at an unacceptable Level of Service (LOS D or worse):

- Tippecanoe Avenue: Mill Street to Orange Show Road / San Bernardino Avenue (**LOS F**)
- Del Rosa Drive: Highland Avenue to Pacific Street (**LOS F**)
- 6th Street:
 - Sterling Avenue to Victoria Avenue (**LOS F**)
 - Victoria Avenue to Central Avenue (**LOS F**)
- 5th Street:
 - I-215 NB Ramps to E Street (**LOS F**)
 - E Street to Waterman Avenue (**LOS D**)
 - Waterman Avenue to Tippecanoe Avenue (**LOS F**)
 - Tippecanoe Avenue to Del Rosa Drive (**LOS F**)
 - Sterling Avenue to Victoria Avenue (**LOS F**)

- Victoria Avenue to Central Avenue (**LOS D**)
- Central Avenue to Palm Avenue (**LOS D**)
- Palm Avenue to SR-210 EB Ramps (**LOS F**)

4.18.6.3 Future Conditions

The Airport Gateway Specific Plan is a programmatic policy-level plan that will be developed incrementally over time, as market conditions allow. There are no identified developers, end users, or even site-specific plans at this time. As developers purchase and assemble individual parcels into parcels large enough for the allowed uses and submit applications for development, a site-specific traffic study, among other technical studies, will be required as part of the entitlement process. Since the timing of development of any portion of the Specific Plan area is uncertain, the analysis of the project for future conditions will focus on build-out conditions for the area.

Future Build-Out 2040 Conditions

To develop Future Build-Out 2040 intersection and roadway traffic forecasts, the San Bernardino Transportation Analysis Model (SBTAM) Base Year 2012 and Build-out Year 2040 model outputs were used. The raw volumes obtained from the model output were post-processed by determining the annual growth between the base model year and the future model year and applying the growth increment to existing count volumes. This was accomplished using the B-Turns methodology, based on the National Cooperative Highway Research Program (NCHRP) Report 255, developed by the Federal Highway Administration (FHWA). As a conservative approach, if a future forecast volume produced by this process was less than the Existing volume, manual adjustments were made to assure that all forecast volumes would not be less than the Existing volumes. In addition, per request from the City of Highland, trips from the traffic studies for the following Cumulative Projects were added to the future forecasts, as they were not included in the SBTAM model projections: (1) SBIA Air Freight/Eastgate Warehouse project, (2) Duke Realty Warehouse project, and (3) Transition Properties project.

The Future Build-Out 2040 SBTAM forecasts include land use assumptions within the Specific Plan area, based on the current General Plan land use designation for the area – a combination of low- and medium-density residential, industrial, commercial, and institutional uses. For a conservative approach, the trips associated with these land uses were not deducted from the 2040 forecasts before adding the Specific Plan project-related trips. It should be noted that future forecasts and project trip assignments were manually adjusted to account for the future connection of 5th Street and 3rd Street, east and west of Church Avenue. Existing lane geometries at the study locations were assumed to remain for the Future Build-Out 2040 and Future Build-Out 2040 Plus Project scenarios.

The SBTAM Model plots, B-Turns worksheets, and Cumulative Project traffic studies are provided in *Appendix D* of the TIS. The resulting Future Build-Out 2040 peak hour intersection traffic volumes are shown on Figures 4.18-17 through 4.18-19. Daily roadway volumes are shown on Figure 4.18-20.

Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for the Future Build-Out 2040 condition, and the results are shown on Table 6 of the TIS. The intersection analysis worksheets are provided in *Appendix C* of the TIS.

Review of this table indicates that, under Future Build-Out 2040 conditions, the following intersections would operate at an unacceptable Level of Service:

- #1 – Del Rosa Drive at SR-210 WB Ramps: AM – **LOS E**
- #20 – Sterling Avenue at 6th Street: AM **LOS F**; PM **LOS F**
- #21 – Victoria Avenue at 6th Street: PM – **LOS E**
- #38 – Del Rosa Drive at 3rd Street: PM – **LOS E**
- #41 – Central Avenue at 3rd Street: PM – **LOS F**
- #42 – Palm Avenue at 3rd Street: PM – **LOS E**
- #46 – Tippecanoe Avenue at Orange Show Road/San Bernardino Avenue: PM – **LOS E**

Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted for the Future Build-Out 2040 condition, and the results are summarized on Table 7 of the TIS. Review of this table indicates that for the Future Build-Out 2040 condition, all study roadway segments would operate at Level of Service C or better, except for the following roadway segments:

- Tippecanoe Avenue: Mill Street to Orange Show Road / San Bernardino Avenue (**LOS F**)
- Del Rosa Drive: Highland Avenue to Pacific Street (**LOS F**)
- 6th Street: Sterling Avenue to Victoria Avenue (**LOS D**)
- 5th Street:
 - I-215 NB Ramps to E Street (**LOS E**)
 - Waterman Avenue to Tippecanoe Ave (**LOS E**)
 - Tippecanoe Avenue to Del Rosa Drive (**LOS E**)
 - Palm Avenue to SR-210 EB Ramps (**LOS D**)
- 3rd Street: Del Rosa Drive to Sterling Avenue (**LOS D**)

Future Build-Out 2040 Plus Project Conditions

Project-related traffic was added to the Future Build-Out 2040 traffic volumes. The resulting Future Build-Out 2040 Plus Project peak hour intersection volumes are shown on Figures 4.18-21 through 4.18-23. Daily roadway volumes are shown on Figure 4.18-24.

Peak Hour Operating Conditions

Intersection Level of Service analysis was conducted for the Future Build-Out 2040 Plus Project condition. The results are shown on Table 8 of the TIS. Copies of intersection analysis worksheets are provided in *Appendix C* of the TIS.

Review of this table indicates that, with the addition of Project traffic, the following intersections would operate at an unacceptable Level of Service:

- #1 – Del Rosa Drive at SR-210 WB Ramps: AM – **LOS E**
- #7 – Victoria Avenue at Highland Avenue: PM – **LOS E**
- #20 – Sterling Avenue at 6th Street: AM **LOS F**; PM **LOS F**
- #21 – Victoria Avenue at 6th Street: AM – **LOS F**; PM – **LOS F**
- #33 – Palm Avenue at 5th Street: AM – **LOS E**; PM – **LOS F**
- #35 – SR-210 EB Ramps at 5th Street: PM – **LOS F**
- #38 – Del Rosa Drive at 3rd Street: PM – **LOS E**
- #41 – Central Avenue at 3rd Street: PM – **LOS F**
- #42 – Palm Avenue at 3rd Street: PM – **LOS E**
- #46 – Tippecanoe Avenue at Orange Show Road /San Bernardino Avenue: PM – **LOS E**

Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted for the Future Build-Out 2040 Plus Project condition, and the results are summarized on Table 9 of the TIS. Review of this table indicates that with the addition of Project traffic, the following study roadway segments would operate at an unacceptable Level of Service:

- Tippecanoe Avenue:
 - 3rd Street to Mill Street (**LOS D**)
 - Mill Street to Orange Show/San Bernardino Avenue (**LOS F**)
- Del Rosa Drive: Highland Avenue to Pacific Street (**LOS F**)
- 6th Street:
 - Del Rosa Drive to Sterling Avenue (**LOS F**)
 - Sterling Avenue to Victoria Avenue (**LOS F**)
 - Victoria Avenue to Central Avenue (**LOS F**)
- 5th Street:
 - I-215 NB Ramps to E Street (**LOS F**)
 - E Street to Waterman Avenue (**LOS D**)
 - Waterman Avenue to Tippecanoe Avenue (**LOS F**)
 - Tippecanoe Avenue to Del Rosa Drive (**LOS F**)
 - Sterling Avenue to Victoria Avenue (**LOS F**)
 - Victoria Avenue to Central Avenue (**LOS D**)
 - Central Avenue to Palm Avenue (**LOS E**)
 - Palm Avenue to SR-210 EB Ramps (**LOS F**)
- 3rd Street: Del Rosa Drive to Sterling Avenue (**LOS F**)

Base Free-Flow Speed (BFFS) Arterial Analysis

The following deficient roadway segments are located wholly within the City of Highland:

- 6th Street:
 - Del Rosa Drive to Sterling Avenue
 - Victoria Avenue to Central Avenue
- 5th Street:
 - Tippecanoe Avenue to Del Rosa Drive
 - Victoria Avenue to Central Avenue
 - Central Avenue to Palm Avenue
 - Palm Avenue to SR-210 EB Ramps

A base free-flow speed (BFFS) arterial analysis was conducted for these segments based on the Highway Capacity Manual 6th Edition. A BFFS arterial analysis evaluates the travel speed of a particular roadway segment compared to its base free-flow speed in each direction of travel during the morning and evening peak hour. The analysis was conducted using the Highway Capacity Software (HCS7) for Future Build-Out 2040 peak hour conditions. The results of the analysis are presented on Table 10 of the TIS. HCS7 outputs for the BFFS arterial analysis can be found in *Appendix G* of the TIS. Review of the table shows that all deficient roadways noted above operate at an acceptable BFFS Level of Service during the AM and PM peak hours, except for following roadway segment:

- 5th Street: Central Avenue to Palm Avenue (Eastbound): PM – **LOS F**

Corridor Analysis

At the request of the City of Highland, a corridor analysis was conducted to evaluate the operations of the segment of 5th Street between the I-215 Southbound Ramps and SR-210 Westbound Ramps, which may be classified as a Class II Arterial. It should be noted that the City does not have any significance criteria for arterial level of service and the results are stated for informational purposes.

The results of the corridor analysis are shown in Table 11 of the TIS. Under Existing conditions, the corridor operates at LOS D or better during the AM peak hour and LOS D or better during the PM peak hour. Under the Existing Plus Project conditions, the corridor would operate at LOS E or better during the AM peak and LOS E or better during the PM peak hour.

For Future Build-Out 2040 conditions, signal timings were adjusted to account for the periodical signal re-timings Cities perform to account for change in traffic patterns and growth over the years. Under Future Build-Out 2040 conditions, the corridor would operate at LOS E or better during the AM peak hour and LOS E or better during the PM peak hour. Under Horizon Year Plus Project conditions, the corridor would operate at LOS F or better during the AM peak hour and LOS F or better during the PM peak hour. It should be noted that the roadway segment of 5th Street from Central Avenue to Palm Avenue in the eastbound direction operate at an acceptable LOS during the AM and PM peak hours. Therefore, it is recommended that this roadway segment widen to 3 lanes. Synchro outputs for the corridor analysis can be found in *Appendix H* of the TIA.

Traffic Signal Warrants

The following unsignalized intersections would operate at an unacceptable Level of Services:

- #20 – Sterling Avenue at 6th Street
- #21 – Victoria Avenue at 6th Street
- #41 – Central Avenue at 3rd Street

Traffic signal warrant analyses were completed for the above intersections. The California Manual on Uniform Traffic Control Devices (MUTCD, 2017), Warrant 3 for peak hour was used. Using the forecasted volumes from the Future Build-out 2040 Plus Project condition, Warrant 3 is met in both peak hours for intersections #20 and #21. Warrant 3 is met in the AM peak hour only for intersection #41. The traffic signal warrant worksheets are provided in *Appendix E* of the TIS.

The California Manual on Uniform Traffic Control Devices (MUTCD) specifically states that, “The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.” The reference document goes on to state a number of other factors to take into account when considering a signal for a specific location, including whether or not a signal would improve the overall safety of the intersection, whether it would benefit or disrupt progressive traffic flow, and consideration of characteristics such as queuing, signal spacing, and overall delay to the main street through movements.

The decision to install a traffic signal should be based on engineering judgment, and not solely upon satisfying a single peak hour warrant. It is recommended that the intersection be monitored once individual projects are completed within the Specific Plan to observe actual peak hour operation, and a decision about signalization should be made based on those observations as well as engineering judgment, based on the factors listed above.

4.18.6.4 Vehicle Miles Traveled (VMT)

VMT Screening

This section documents Vehicle Miles Traveled (VMT)/SB 743 considerations for the project. Both the City of San Bernardino Guidelines and SBCTA Guidelines provide details on appropriate screening thresholds that can be used to identify when a proposed land use project is anticipated to result in a less than significant impact without conducting a more detailed level analysis. Screening thresholds are broken into the following three steps:

1. Transit Priority Area (TPA) Screening
2. Low VMT Area Screening
3. Project Type Screening

A land use project needs to only meet one of the above screening thresholds to be presumed to result in a less-than-significant impact under CEQA pursuant to SB 743.

Transit Priority Area (TPA) Screening

As described in the City of San Bernardino and SBCTA Guidelines, projects located within a half mile from an existing major transit stop or within half of a mile from an existing stop along a high-quality transit corridor can be screened out. Based on the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool, the project is not located in a Transit Priority Area (TPA). The TPA screening criteria is not met.

Low VMT Area Screening

The project is located in multiple Traffic Analysis Zones (TAZ). Some TAZs are in a low VMT area, while others are not. Since the entirety of the Specific Plan area is not within a low VMT area, the Low VMT Area screening threshold is not met.

Project Type Screening

The City of San Bernardino and SBCTA Guidelines identify that Project types falling under the screening criteria includes the following:

- Local-serving retail less than 50,000 square feet
- Local-serving K-12 schools
- Local parks
- Day care centers
- Local serving gas stations
- Local serving banks
- Local serving hotels (e.g. non-destination hotels)
- Student housing projects on or adjacent college campuses
- Local-serving assembly uses, Community Institutions
- Local serving community colleges
- Affordable or supportive housing, Assisted living facilities, Senior housing
- Projects generating less than 110 daily vehicle trips

The Project Type Screening criteria for this project is not met except for the retail uses within the Specific Plan which could be considered local serving.

TRAN-1 Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

The proposed AGSP would replace the existing mix of uses—including single-family residential, multi-family residential, small-lot commercial, educational facilities, and industrial uses—within the planning area to enable approximately 9.2 million SF of Mixed Use Business Park uses. This change in use is forecast to result in the generation of 30,972 net passenger car equivalent (PCE) trips on a daily basis, with 1,772 net PCE trips in the morning (AM) peak hour, and 2,220 net PCE trips in the evening peak hour. The trip generation forecast utilized net project trips, which included the existing land use credits and were divided proportionately into smaller zones within the Specific Plan area to determine which areas from within the Specific Plan area traffic would be generated from.

As stated above under 4.18.3.3, Existing Operating Conditions, all study intersections currently operate at an acceptable LOS in both peak hours, with the exception of the following intersections:

- #20 – Sterling Avenue at 6th Street (unsignalized): AM – **LOS F**; PM – **LOS E**
- #41 – Central Avenue at 3rd Street (unsignalized): PM – **LOS E**

Additionally, the following study roadway segments are currently operating at an unacceptable LOS:

- Tippecanoe Avenue: Mill Street to Orange Show Road / San Bernardino Avenue
- Del Rosa Drive: Highland Avenue to Pacific Street

As a measure of creating a future baseline, as stated above under 4.18.5.3 Traffic Impact Study Data, under Future Build-Out 2040 conditions, the following intersections would operate an unacceptable LOS:

- #1 – Del Rosa Drive at SR-210 WB Ramps: AM – **LOS E**
- #20 – Sterling Avenue at 6th Street: AM **LOS F**; PM **LOS F**
- #21 – Victoria Avenue at 6th Street: PM – **LOS E**
- #38 – Del Rosa Drive at 3rd Street: PM – **LOS E**
- #41 – Central Avenue at 3rd Street: PM – **LOS F**
- #42 – Palm Avenue at 3rd Street: PM – **LOS E**
- #46 – Tippecanoe Avenue at Orange Show Road/San Bernardino Avenue: PM – **LOS E**

Additionally, the following roadway segments would operate at an unacceptable LOS:

- Tippecanoe Avenue: Mill Street to Orange Show Road / San Bernardino Avenue
- Del Rosa Drive: Highland Avenue to Pacific Street
- 6th Street: Sterling Avenue to Victoria Avenue
- 5th Street:
 - I-215 NB Ramps to E Street
 - Waterman Avenue to Tippecanoe Ave
 - Tippecanoe Avenue to Del Rosa Drive
 - Palm Avenue to SR-210 EB Ramps
- 3rd Street: Del Rosa Drive to Sterling Avenue

The TIS concluded that, as stated above under 4.18.5.3 Traffic Impact Study, under Future Build-Out 2040 Plus Project conditions, the following intersections would operate at an unacceptable Level of Service:

- #1 – Del Rosa Drive at SR-210 WB Ramps: AM – **LOS E**
- #7 – Victoria Avenue at Highland Avenue: PM – **LOS E**
- #20 – Sterling Avenue at 6th Street: AM **LOS F**; PM **LOS F**

- #21 – Victoria Avenue at 6th Street: AM – **LOS F**; PM – **LOS F**
- #29 – Del Rosa Drive at 5th Street: PM – **LOS F**
- #33 – Palm Avenue at 5th Street: AM – **LOS E**; PM – **LOS F**
- #35 – SR-210 EB Ramps at 5th Street: PM – **LOS F**
- #38 – Del Rosa Drive at 3rd Street: PM – **LOS E**
- #41 – Central Avenue at 3rd Street: PM – **LOS F**
- #42 – Palm Avenue at 3rd Street: PM – **LOS E**
- #46 – Tippecanoe Avenue at Orange Show Road /San Bernardino Avenue: PM – **LOS E**

Under Future Build-Out 2040 Plus Project conditions, the following roadway segments would operate at an unacceptable Level of Service:

- Tippecanoe Avenue:
 - 3rd Street to Mill Street
 - Mill Street to Orange Show/San Bernardino Avenue
- Del Rosa Drive: Highland Avenue to Pacific Street
- 6th Street:
 - Del Rosa Drive to Sterling Avenue
 - Sterling Avenue to Victoria Avenue
 - Victoria Avenue to Central Avenue
- 5th Street:
 - I-215 NB Ramps to E Street
 - E Street to Waterman Avenue
 - Waterman Avenue to Tippecanoe Avenue
 - Tippecanoe Avenue to Del Rosa Drive
 - Sterling Avenue to Victoria Avenue
 - Victoria Avenue to Central Avenue
 - Central Avenue to Palm Avenue
 - Palm Avenue to SR-210 EB Ramps
- 3rd Street: Del Rosa Drive to Sterling Avenue

Based on the data contained above, traffic generated by development associated with the AGSP would cause a significant impact to 10 intersections and 15 roadway segments. Based on the City of San Bernardino and City of Highland standards for analyzing whether a project would have a significant impact on level of service (identified under sections 4.18.4.1 and 4.18.4.2), without the implementation of mitigation, the proposed AGSP would adversely impact these City's programs, policies, plans, ordinances, and/or policies pertaining to the City's circulation. However, implementation of mitigation will ensure that future development under the AGSP will comply with both the Cities of Highland and San Bernardino General Plan goals and policies set forth for meeting circulation standards (*San Bernardino General Plan Circulation Element Goals 6.1, 6.2, 6.3, and 6.5 and Policies 6.1.1 through 6.1.3, Policies 6.2.1 through 6.2.7, Policies 6.3.1 through 6.3.7, and Policies 6.5.1 through 6.5.4; Highland General Plan Circulation Element Goal 3.1 Policies 1-10, Goal 3.2 Policies 1-5, Goal 3.4 Policies 1.15, and Goal 3.6 Policies 1-9*).

The AGSP planning area contains some sidewalk, but generally is not actively utilized for pedestrian movement due to the types of uses located within the area. Generally, development associated with the AGSP may increase sidewalk connectivity through mitigation described below, thereby providing a benefit to pedestrian circulation in the project area, which would further the City of Highland's ability to meet General Plan Circulation Element Goal 3.2, Policy 10, and Goal 3.4, Policies 4, 7, 11, 13, and 15, and would further the City of San Bernardino's ability to

meet General Plan Circulation Element Goals 6.1 and 6.6, and Policies 6.6.1 and 6.6.6, as well as General Plan Parks, Recreation, and Trails Element Goal 8.3, Policies 8.3.4, 8.3.8, and 8.3.12.

As stated previously under Section 4.18.3.5, transit service to the project area is provided by OmniTrans, and currently only Route 15 travels on any of the streets within the Specific Plan area. The OmniTrans bus stops located closest to the Specific Plan area are as follows: Tippecanoe Avenue at 3rd Street; Del Rosa Drive at 3rd Street; Del Rosa Drive at 6th Street; Central Avenue at 5th Street; and Palm Avenue at 5th Street. Similar to the discussion of pedestrian access above, these bus stops may be impacted by development under the AGSP, most likely though required improvements along the frontage of future projects including sidewalks, improved bus stops, and development of frontage roadways to buildout condition where possible upon the development of future AGSP projects, which would further the City of Highland's ability to meet General Plan Circulation Element Goal 3.1, Policy 10, and Goal 3.5, Policies 1-8, and would further the City of San Bernardino's ability to meet General Plan Circulation Element Goal 6.6, and Policies 6.6.1 through 6.6.6, 6.6.8 through 6.6.10, and 6.9.2. The provision of the above bus stops would enable future employees of developments within the AGSP access to alternative modes of transportation, particularly by providing connectivity to the San Bernardino Transit Center, where passengers can transfer to other OmniTrans routes, as well as to RTA, Mountain Transit, Pass Transit and VVTA routes, or to Metrolink, which connects to much of Southern California.

As described under Section 4.18.2.5, the AGSP planning area contains existing bike lanes at several locations within the planning area. However, bikeway connectivity could be improved to enable bicycle circulation within the AGSP planning area, enabling both the Cities of Highland and San Bernardino to meet the goals and policies set forth for Bicycle Circulation in their respective General Plans (*San Bernardino General Plan Circulation Element Goals 6.1 and 6.6, Policies 6.1.1 and 6.6.6; San Bernardino General Plan Parks, Recreation, and Trails Element Goals 8.3 and 8.4 and Policies 8.3.4, 8.3.5, 8.3.7, 8.3.9, 8.3.12, and 8.4.7; City of Highland General Plan Circulation Element Goal 3.2, Policy 1, Goal 3.4, Policy 7, Goal 3.7 Policy 1, 3, 4, and 5*). Similar to the discussion of pedestrian access and transit route availability above, bikeways may be impacted by development under the AGSP, most likely though required improvements along the frontage of future projects including sidewalks, improved bus stops, bikeways where planned but not yet installed, and development of frontage roadways to buildout condition where possible upon the development of future AGSP projects.

The City of San Bernardino intends to develop a Regional Multi-Purpose Trail along City Creek, which traverses the AGSP Planning area from East to West. Development associated with the AGSP could aid in development of this trail as the City envisions within the AGSP planning area through mitigation outlined below, which would further the City's ability to meet General Plan Goals 8.3 and 8.4 and Policies 8.3.1, 8.3.2, 8.3.10, 8.3.11, 8.3.12, 8.4.4, 8.4.5, and 8.4.7 also meet the City of Highland General Plan Goal 3.7, Policy 5.

Mitigation Measures:

Intersection improvements for these 10 deficient intersections, as shown on Table 4.18-4, have been identified to improve the intersections to operate at an acceptable Level of Service. Intersection worksheets for the mitigation measures are provided in *Appendix F* of the TIS. The roadway improvements shown on Table 4.18-5 have been identified to mitigate the project impact on the deficient roadway segments. The project fair share proportion of the improvements are

shown on Table 14.18-6, and the estimated costs of the proposed improvements, as derived from the Congestion Management Program (CMP) Appendix G, are shown on Table 14.18-7.

Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted for the Existing Plus Project condition, and the results are summarized on Table 5 of the TIS. Review of this table indicates that with the addition of Project traffic, the following roadway segments would operate at an unacceptable Level of Service (LOS D or worse):

- Tippecanoe Avenue: Mill Street to Orange Show Road / San Bernardino Avenue **(LOS F)**
- Del Rosa Drive: Highland Avenue to Pacific Street **(LOS F)**
- 6th Street:
 - Sterling Avenue to Victoria Avenue **(LOS F)**
 - Victoria Avenue to Central Avenue **(LOS F)**
- 5th Street:
 - I-215 NB Ramps to E Street **(LOS F)**
 - E Street to Waterman Avenue **(LOS D)**
 - Waterman Avenue to Tippecanoe Avenue **(LOS F)**
 - Tippecanoe Avenue to Del Rosa Drive **(LOS F)**
 - Sterling Avenue to Victoria Avenue **(LOS F)**
 - Victoria Avenue to Central Avenue **(LOS D)**
 - Central Avenue to Palm Avenue **(LOS D)**
 - Palm Avenue to SR-210 EB Ramps **(LOS F)**

**Table 4.18-4
 SUMMARY OF INTERSECTION OPERATION WITH MITIGATION
 FUTURE BUILD-OUT 2040 PLUS PROJECT**

Int #	Intersection and Mitigation	AM LOS	AM LOS With MM	PM LOS	PM LOS With MM
1	Del Rosa Drive at SR-210 WB Ramps				
	Add 2 nd NB Left-Turn Lane	E	C	D	C
7	Victoria Avenue at Highland Avenue				
	Add 2 nd SB Left-Turn Lane	C	C	E	D
20	Sterling Avenue at 6th Street				
	Signalization	F	B	F	B
21	Del Rosa Drive at SR-210 WB Ramps				
	Signalization	F	B	F	B
33	Palm Avenue at 5th Street				
	Add 2 nd NB Right-Turn Lane with Overlap	E	D	F*	D
35	SR-210 EB Ramps at 5th Street				
	Add 2 nd SB Left-Turn Lane	D	D	F*	C
38	Del Rosa Drive at 3rd Street				
	Add 3 rd EB Through Lane	C	C	E	D
41	Central Avenue at 3rd Street				
	Signalization	D	B	F	B
43	Del Rosa Drive at SR-210 WB Ramps				
	Add 2 nd NB Left-Turn Lane	D	C	E	D
46	Tippecanoe Avenue at Orange Show Road/ San Bernardino Ave				
	Add NB Right Turn Lane; Add WB Right Turn Lane with Overlap	C	C	E	D
Notes: - MM = Mitigation Measure; NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound - Shaded Values indicate intersections operating at an unacceptable LOS per City Standards					

**Table 4.18-5
SUMMARY OF ROADWAY SEGMENT ANALYSIS WITH MITIGATION
FUTURE BUILD-OUT 2040 PLUS PROJECT**

Roadway	Segment	Jurisdiction	Mitigated Roadway Configuration	Mitigated LOS E Capacity ¹	Future Build-Out 2040 ADT	Project ADT	Future Build-Out 2040 Plus Project ADT	V/C	LOS
Tippecanoe Avenue	3rd Street to Mill Street	SB	6-Lane Divided Major	60,000	43,928	9762	53,690	0.895	D²
	Mill Street to Orange Show Rd / San Bernardino Ave	SB	6-Lane Divided Major	60,000	47,921	9,762	57,683	0.961	E³
Del Rosa Drive	Highland Avenue to Pacific Street	SB	4-Lane Divided Major	40,000	19,585	2,300	21,885	0.547	A
6th Street	Del Rosa Drive to Sterling Avenue	H	4 Lane Undivided Collector	30,000	7,501	2,960	10,461	0.349	A
	Sterling Avenue to Victoria Avenue	SB/H	4-Lane Undivided Collector	30,000	8,278	6,532	14,810	0.494	A
	Victoria Avenue to Central Avenue	H	4-Lane Undivided Collector	30,000	5,844	6,871	12,715	0.424	A
5th Street	I-215 NB Ramps to E Street	SB	6-Lane Divided Major	60,000	37,481	12,396	49,877	0.831	D³
	E Street to Waterman Avenue	SB	6-Lane Divided Major	60,000	22,657	12,396	35,053	0.584	A
	Waterman Avenue to Tippecanoe Avenue	SB	6-Lane Divided Major	60,000	13,621	13,162	26,783	0.446	A ⁴
	Tippecanoe Avenue to Del Rosa Drive	H	6-Lane Divided Major	60,000	14,297	15,133	29,430	0.491	A ⁴
	Sterling Avenue to Victoria Avenue	SB/H	6-Lane Divided Major	60,000	8,476	21,993	30,469	0.508	A ⁴
	Victoria Avenue to Central Avenue	H	6-Lane Divided Major	60,000	11,954	22,319	34,273	0.571	A
	Central Avenue to Palm Avenue	H	6-Lane Divided Major	60,000	11,912	25,092	37,004	0.617	B
	Palm Avenue to SR-210 EB Ramps	H	6-Lane Divided Major	60,000	33,870	25,999	59,869	0.998	E³
3rd Street	Del Rosa Drive to Sterling Avenue	SB/H	6-Lane Divided Major	60,000	34,523	10,440	44,963	0.749	C

Notes:

- ¹ Source: City of San Bernardino General Plan Update (2005)
- ² Roadway segment is currently built to ultimate configuration.
- ³ Based on standard cross section for the roadway segment, based on the City's General Plan, does not provide enough roadway width for an 8-lane roadway.

⁴ For consistency with adjacent roadway segments, a 6-lane divided roadway is recommended. However, a 4-lane divided roadway would yield an acceptable Level of Service.
LOS = Level of Service ADT = Average Daily Traffic V/C = Volume-to-Capacity

**Table 4.18-6
SUMMARY OF PROJECT FAIR SHARE FOR MITIGATION MEASURES**

Intersection	AM Peak Hour					PM Peak Hour				
	Volumes		Total Growth	Project Trips	Fair Share %/age	Existing		Total Growth	Project Trips	Fair Share %/age
	Existing	2040				Volumes	2040			
#1-Del Rosa Drive at SR-210 WB Ramps	2,483	2,768	285	15	5.3%	2,420	2,773	353	68	19.3%
#7-Victoria Avenue at Highland Avenue	2,513	3,744	1,231	122	9.9%	3,504	5,370	1,866	195	10.5%
#20-Sterling Avenue at 6th Street	985	1,519	534	184	34.5%	1,071	1,706	635	218	34.3%
#21-Del Rosa Drive at SR-210 WB Ramps	643	1,212	569	302	53.1%	772	1,514	742	367	49.5%
#33-Palm Avenue at 5th Street	2,518	3,546	1,028	745	72.5%	3,043	4,161	1,118	814	72.8%
#35-SR-210 EB Ramps at 5th Street	2,668	4,412	1,744	813	46.6%	2,617	4,643	2,026	952	47.0%
#38-Del Rosa Drive at 3rd Street	1,907	3,353	1,446	331	22.9%	2,335	4,137	1,802	400	22.2%
#41-Central Avenue at 3rd Street	637	1,395	758	230	30.3%	1,186	2,251	1,065	384	36.1%
#42-Del Rosa Drive at SR-210 WB Ramps	1,684	2,325	641	-110	-17.2%	1,940	2,691	751	-207	-27.6%
#46-Tippecanoe Avenue at Orange Show Road/ San Bernardino Ave	2,265	3,758	1,493	249	16.7%	3,661	5,650	1,989	304	15.3%

Roadway Segment	Daily Traffic				
	Total Volume		Total Growth	Project Trips	Fair Share %-age
	Existing	2040			
Tippecanoe Avenue (Mill Street to Orange Show Road/San Bernardino Avenue)	32,591	57,307	24,716	9,762	39.5%
Del Rosa Drive (Highland Avenue to Pacific Street)	17,645	21,885	4,240	2,300	54.3%
6th Street (Del Rosa Drive to Sterling Avenue)	4,714	10,461	5,747	2,960	51.5%
6th Street (Sterling Avenue to Victoria Avenue)	3,519	14,810	11,291	6,532	57.9%
6th Street (Victoria Avenue to Central Avenue)	4,047	12,715	8,668	6,871	79.3%
5th Street (I-215 NB Ramps to E Street)	30,975	49,281	18,306	12,396	67.7%
5th Street (E Street to Waterman Avenue)	20,083	34,457	14,374	12,396	86.2%
5th Street (Waterman Avenue to Tippecanoe Avenue)	9,167	26,187	17,020	13,162	77.3%
5th Street (Tippecanoe Avenue to Del Rosa Drive)	8,725	28,834	20,109	15,133	75.3%
5th Street (Sterling Avenue to Victoria Avenue)	3,911	30,469	26,558	21,993	82.8%
5th Street (Victoria Avenue to Central Avenue)	9,939	34,273	24,334	22,319	91.7%
5th Street (Central Avenue to Palm Avenue)	9,939	37,004	27,065	25,092	92.7%
5th Street (Palm Avenue to SR-210 SB Ramps)	26,098	58,516	32,418	25,999	80.2%
3rd Street (Del Rosa Drive to Sterling Avenue)	18,143	44,309	26,166	10,440	39.9%

**Table 4.18-7
TRAFFIC IMPACT MITIGATION FAIR-SHARE COST**

Intersection / Roadways / Improvements	Unit Cost ²	Quantity	Total
#1 - Del Rosa Drive at SR-210 WB Ramps			
Add 2nd NB Left-Turn Lane	\$50,000	1	\$50,000
Project Fair Share percentage ¹			19.3%
Project Cost			\$9,632
#7 - Victoria Avenue at Highland Avenue			
Add 2nd SB Left-Turn Lane	\$50,000	1	\$ 50,000
Project Fair Share percentage ¹			10.5%
Project Cost			\$ 5,225
#20 - Sterling Avenue at 6th Street			
Signalization	\$250,000	1	\$250,000
Project Fair Share percentage ¹			34.5%
Project Cost			\$86,142

Intersection / Roadways / Improvements	Unit Cost ²	Quantity	Total
#21 - Del Rosa Drive at SR-210 WB Ramps			
Signalization	\$250,000	1	\$250,000
Project Fair Share percentage ¹			53.1%
Project Cost			\$132,689
#33 - Palm Avenue at 5th Street			
Add NB Right-turn Lane with Overlap	\$125,000	1	\$125,000
Project Fair Share percentage ¹			72.8%
Project Cost			\$91,011
#35 - SR-210 EB Ramps at 5th Street			
Restripe SB Approach to Add 2nd Left-Turn Movement	\$50,000	1	\$50,000
Project Fair Share percentage ¹			47.0%
Project Cost			\$23,495
#38 - Del Rosa Drive at 3rd Street			
Add 3rd EB Through Lane	\$15,000 ³	1	\$15,000
Project Fair Share percentage ¹			22.9%
Project Cost			\$3,434
#41 - Central Avenue at 3rd Street			
Signalization	\$250,000	1	\$250,000
Project Fair Share percentage ¹			36.1%
Project Cost			\$90,141
#42 - Palm Avenue at 3rd Street			
Add 2nd NB Left-Turn Lane	\$50,000	1	\$50,000
Project Fair Share percentage ¹			-17.2%
Project Cost			\$ (8,580)
#46 - Tippecanoe at Orange Show Road/San Bernardino Avenue			
Add NB Right-Turn Lane; Add WB Right-Turn Lane with Overlap	\$175,000	1	\$175,000
Project Fair Share percentage ¹			16.7%
Project Cost			\$29,186
Tippecanoe Avenue (Mill Street to Orange Show Road/San Bernardino Avenue)⁴			
Add 1 Lane in Each Direction	\$360,000	0.6	\$216,000
Project Fair Share percentage			39.5%
Project Cost			\$ 85,313
Del Rosa Drive (Highland Avenue to Pacific Street)			
Add 1 Lane in Each Direction	\$360,000	0.5	\$180,000
Project Fair Share percentage			54.3%
Project Cost			\$97,653

Intersection / Roadways / Improvements	Unit Cost²	Quantity	Total
6th Street (Del Rosa Drive to Sterling Avenue)			
Add 1 Lane in Each Direction	\$360,000	0.5	\$180,000
Project Fair Share percentage			51.5%
Project Cost			\$92,715
6th Street (Sterling Avenue to Victoria Avenue)			
Add 1 Lane in Each Direction	\$360,000	1	\$360,000
Project Fair Share percentage			57.85%
Project Cost			\$208,263
6th Street (Victoria Avenue to Central Avenue)			
Add 1 Lane in Each Direction	\$360,000	0.5	\$180,000
Project Fair Share percentage			79.3%
Project Cost			\$142,683
5th Street (I-215 NB Ramps to E Street)			
Add 1 Lane in Each Direction	\$360,000	0.4	\$144,000
Project Fair Share percentage			67.7%
Project Cost			\$97,509
5th Street (E Street to Waterman Avenue)			
Add 1 Lane in Each Direction	\$360,000	0.9	\$324,000
Project Fair Share percentage			86.2%
Project Cost			\$279,414
5th Street (Waterman Avenue to Tippecanoe Avenue)⁵			
Add 2 Lanes in Each Direction	\$720,000	1	\$720,000
Project Fair Share percentage			77.3%
Project Cost			\$ 556,786
5th Street (Tippecanoe to Del Rosa Drive)⁵			
Add 2 Lanes in Each Direction	\$720,000	0.55	\$396,000
Project Fair Share percentage			75.25%
Project Cost			\$298,007
5th Street (Sterling Avenue to Victoria Avenue)⁵			
Add 2 Lanes in Each Direction	\$720,000	1	\$720,000
Project Fair Share percentage			82.8%
Project Cost			\$596,252
5th Street (Victoria Avenue to Central Avenue)⁵			
Add 1 Lane in Each Direction	\$360,000	0.5	\$180,000
Project Fair Share percentage			91.7%
Project Cost			\$165,093
5th Street (Central Avenue to Palm Avenue)			
Add 1 Lane in Each Direction	\$360,000	0.5	\$180,000
Project Fair Share percentage			92.7%
Project Cost			\$166,877
5th Street (Palm Avenue to SR-210 EB Ramps)			

Intersection / Roadways / Improvements	Unit Cost ²	Quantity	Total
Add 1 Lane in Each Direction	\$360,000	0.5	\$180,000
Project Fair Share percentage			80.20%
Project Cost			\$144,361
3rd Street (Del Rosa Drive to Sterling Avenue)			
Add 1 Lane in Each Direction	\$360,000	0.5	\$180,000
Project Fair Share percentage			39.9%
Project Cost			\$ 71,818
Total Project Cost			\$3,465,119
¹ Higher of AM or PM project fair share percentage ² Source: San Bernardino County CMP, 2003 Update; Preliminary Construction Cost Estimates for Congestion Management Plan ³ Assumes minor re-striping for mitigation measure ⁴ Tippecanoe Avenue is currently 6-lanes from Mill Street to Central Avenue ⁵ Mitigation costs reflects widening to 6-lanes for consistency with adjacent roadway segments; however, the roadway segment as a 4-lane divided roadway would also yield an acceptable Level of Service.			

Most of the roadways within the Specific Plan area are not yet built to their master plan build-out configuration. It is recommended that each development within the Specific Plan be required to construct the roadway improvements along the project frontage to achieve the full roadway width, including curb, sidewalk, and gutter, as indicated on the applicable Circulation Element (either the City of San Bernardino or City of Highland). This would improve not only the circulation of automotive traffic, but would also improve pedestrian access to this corridor.

In addition, it is recommended that alongside roadway improvements, where the applicable General Plan has identified a planned bike route, the improved frontage shall include space to accommodate a future bike route. Both the City of San Bernardino and City of Highland General Plans contain goals and/or policies pertaining to bicycle circulation, of which one policy suggests that bike racks shall be provided along major public streets. Where applicable, development within the AGSP shall provide bike racks as deemed appropriate by the corresponding City in conjunction with frontage improvements. In that same vein, where bicycle parking is not public at future developments within the AGSP, future development would provide adequate and secure bicycle storage facilities with bicycle parking spaces equaling 10% of the total number of automobile parking spaces required for a given development.

As with sidewalk and bicycle accommodations, development within the AGSP planning area may result in impacts to bus stops along OmniTrans Route 15. As such, future development shall be required to improve existing bus stops along frontages of future project sites, and for projects developed outside of the existing Route, shall consult with OmniTrans to determine whether additional stops along this route or other routes are necessary as development within the AGSP planning area increases.

The City of San Bernardino General Plan indicates that there is a planned Regional Multi-Purpose Trail along City Creek, which traverses the AGSP Planning area from East to West. Development associated with the AGSP shall therefore contribute funds to further enable the development of this trail.

Additionally, it is recommended that future development within the AGSP incorporate truck parking lots within the Specific Plan or at nearby locations to allow trucks that may arrive early to

their destination within the Specific Plan to wait if on-site queues block the truck from entering the truck yard.

Given the discussion above, the following mitigation measures are proposed to minimize adverse impacts to circulation, including automotive and alternative modes of transportation.

TRAN-1: *Future development under the AGSP shall require fair share contribution towards the deficient roadway segments and intersections outlined under Tables 4.18-4 through 4.18-7. Fair share contribution shall be contributed by future projects within the AGSP in the following manners:*

- *Fair share contribution shall be tabulated as a percentage of the total AGSP project cost (\$3,465,119) that shall be based on the square footage of a given future project in relation to the allowable square footage within the AGSP. For instance, if a project would contribute 500,000 square feet (SF) of the allowable 9,199,491 SF within the AGSP, the project's fair share would be to contribute 5.44% (equal to \$188,332.11) of the total fair share cost for AGSP related traffic (\$3,465,119);*
- *The City of San Bernardino, City of Highland, and the Inland Valley Development Agency (IVDA) shall establish a community facilities district or comparable collaborative mechanism that each future project within the AGSP shall pay into to fund roadway the necessary roadway infrastructure to remedy deficiencies identified in Tables 4.18-4 through 4.18-7.*

TRAN-2: *Every new project within the AGSP shall be required to construct the roadway improvements along the project frontage to achieve full roadway width, including curb, sidewalk, gutter, and width required for bike lanes, where applicable as indicated on the applicable Circulation Element (either the City of San Bernardino or City of Highland). Where these improvements occur at an existing bus stop, the project proponent shall be required to improve the bus stop as directed by OmniTrans and the City within which the project is developed.*

TRAN-3: *Where a future project is not located within a quarter mile of an existing OmniTrans bus stop, the project proponent shall be required to consult with the City within which the project is proposed and/or with OmniTrans to determine whether additional stops along this route or other routes are necessary to accommodate future AGSP development as development within the AGSP planning area increases. Where OmniTrans and/or the City determine that a new bus stop is appropriate, the project proponent shall be required to either install a bus stop meeting OmniTrans' standards or shall provide the funds to OmniTrans to develop the bus stop.*

TRAN-4: *Future development under the AGSP shall be required to contribute a fair share contribution towards the Regional Multi-Purpose Trail along City Creek. The City of San Bernardino, City of Highland, and the Inland Valley Development Agency (IVDA) shall establish a community facilities district or comparable collaborative mechanism that each future project within the AGSP shall pay into to fund the City Creek Regional Multi-Purpose Trail that would be located within the confines of the AGSP planning area.*

TRAN-5: *Future development under the AGSP shall be required to provide bike racks where deemed appropriate by the corresponding City in conjunction with frontage improvements. Additionally, future developments within the AGSP shall provide adequate and secure bicycle storage facilities through the*

provision of bicycle parking spaces equaling 10% of the total number of automobile parking spaces required for a given development.

TRAN-6: *Future projects shall incorporate truck parking lots within or near the AGSP Planning Area to allow for truck queuing. This can be accomplished on an individual project basis as part of project design, or alternatively the City of San Bernardino, City of Highland, and the Inland Valley Development Agency (IVDA) shall establish a mechanism by which future project proponents can contribute to a funding mechanism to be directed to the development of truck parking lots by the above agency/Cities.*

TRAN-7: *Every new project within the AGSP shall be required to contribute its fair share to installing signals at the following intersections:*

- *Sterling Avenue at 6th Street*
- *Victoria Avenue at 6th Street*
- *Central Avenue at 3rd Street*

The Cities within which the above intersections are located, at which signals would be installed shall determine the appropriate timing in which to install a signal at the above intersections based on actual peak hour operations, engineering judgement and signal peak hour warrant analyses.

Level of Significance: Less Than Significant With Mitigation Incorporated

Implementation of mitigation measure (MM) **TRAN-1** would ensure that each project contributes its fair share contribution to circulation deficiencies that would be generated by development associated with the AGSP, resulting in minimized impacts and compliance with the City of San Bernardino and City of Highland General Plan Goals and Policies, as well as with the SCAG Connect SoCal Goals, such that no significant conflicts conflict with programs, plans, ordinances or policies addressing the circulation system would occur.

MM **TRAN-2** would improve pedestrian and transit access within the AGSP planning area, preventing any significant conflicts with a program, plan, ordinance or policy addressing the pedestrian facility circulation system.

The provision of adequate transit access through additional bus stops within the AGSO would be assured by MM **TRAN-3**, thus preventing inadequate transit access within the AGSP planning area as the intensity of development occurs, thereby resulting in a greater potential for transit/bus trips to and from the area from future visitors and employees of AGSP developments.

MM **TRAN-4** would enable the City of San Bernardino to raise funds to develop the planned Regional Multi-Purpose Trail along City Creek, which traverses the AGSP planning area from east to west. This would provide greater trail-system and pedestrian access throughout the planning area, minimizing conflicts with applicable programs, plans, ordinances or policies addressing the circulation system such that no significant impact thereof would occur.

Future AGSP development will be required to include bicycle parking into a given development's design and/or provide public bicycle parking spaces along the site frontage through MM **TRAN-5** to meet the City of San Bernardino and City of Highland General Plan Goals and Policies addressing bicycle parking, thereby preventing any conflicts with applicable programs, plans, ordinances or policies addressing the circulation system such that no significant impact thereof would occur.

The availability of truck parking lots that would be required through MM **TRAN-6** would ensure that circulation within the AGSP planning area is not inhibited due to idling trucks.

Additionally, MM **TRAN-7** would enable the Cities of Highland and San Bernardino to fund new signals at Sterling Avenue at 6th Street, Victoria Avenue at 6th Street, and Central Avenue at 3rd Street and ensure the signals are installed at when appropriate, further minimizing any conflicts with programs, plans, ordinances or policies addressing the circulation system within the AGSP planning area.

The above measures are necessary to minimize AGSP related conflicts to programs, policies, plans, or ordinances addressing the circulation system, and with the above measures, the proposed project would not conflict with the City of San Bernardino and City of Highland General Plan Goals and Policies, the SCAG Connect SoCal Goals, or other applicable programs. As such, no adverse impacts under this issue are anticipated to occur.

TRAN-2 Would the project conflict or be inconsistent with CEQA Guidelines para. 15064., subdivision (b)?

As discussed under 4.18.4.3, Vehicle Miles Traveled Screening, Senate Bill 743 mandates that CEQA guidelines be amended to provide an alternative to Level of Service for evaluating transportation impacts. The amended CEQA guidelines, specifically Section 15064.3, recommend the use of Vehicle Miles Traveled (VMT) for transportation impact evaluation. For the purposes of this analysis the City of San Bernardino's Traffic Impact Analysis Guidelines (August 2020) VMT methodology and screening for determining a project significant transportation impact under the CEQA process within the City's jurisdiction has been utilized, and because the City of Highland refers to the San Bernardino County Transportation Authority (SBCTA) SB 743 Vehicle Miles Traveled Implementation Study (SBCTA Guidelines; February 2020), it has been utilized for VMT methodology and screening.

The following has been extrapolated from the data and analysis provided in Appendix 11b of Volume 2 the VMT Analysis prepared by Urban Crossroads.

A logical way to evaluate the type of land uses within the Specific Plan area is to consider the major trip purposes of the land uses in terms of their trip length and frequency. Given the description, three types of trips were broadly considered for this Specific Plan area given its context: (1) employee commute trips; (2) other trips related to the functioning of businesses and/or their employees and (3) truck trips related to shipping activities. The following discussion is provided regarding these three broad trip types.

Employee commute trips: These are the primary automobile trips associated with employment generating uses such as within the proposed Specific Plan. This Specific Plan is expected to provide additional jobs and some related trips to the area. The efficiency of VMT associated with employee commute trips has been assessed based on SBTAM, consistent with the City of San Bernardino and SBCTA guidelines.

Other trips: These are often the smallest number and shortest distance of trips for a Specific Plan area like this and include a broad range of trip types, such as, employee lunches off-site, maintenance teams for on-site infrastructure, office supply deliveries, customer trips associated with the retail uses, etc. As such their impact to the overall VMT of the site is likely minimal. As such it is not likely that they are impactful to the local transportation system and are secondary to

the other two trip types discussed. The efficiency of VMT associated with other trips has also been assessed based on SBTAM, consistent with the adopted City of San Bernardino and SBCTA guidelines.

Truck trips related to shipping activities: CEQA Guidelines Section 15064.3, subdivision (a) states “For the purposes of this section ‘vehicle miles traveled’ refers to the amount and distance of automobile travel attributable to a project.” The OPR’s 2018 Technical Advisory indicates that, although heavy vehicle traffic can be included for analysis convenience, the provided analysis requirements are specific to passenger-vehicles and light duty trucks. While it may be appropriate to consider heavy vehicle traffic if directed by the lead agency, it is generally understood that Interstate commerce and related heavy vehicle traffic are regulated by the federal government as it relates to commerce. Irrespective of this and considering that the end- users within the Specific Plan are unknown at this time (so the nature of the business enterprises and its probable origins and destinations are unknown), it is reasonable to assume that the ultimate end user will select this location, at least in part, as to how it effects their transportation costs. Most often businesses who have shipping as a significant part of their operations are sensitive to transportation costs and their relative proximity to customers and suppliers. Accordingly, it is reasonable to assume that warehouses are often located in a manner to reduce VMT given that it is in the interest of the business. It is also recognized that the project would generate Heavy Duty Truck (HDT) traffic and has been considered in this VMT assessment.

Project VMT

The calculation of vehicle miles traveled has two components – the total number of trips generated and the average trip length of each vehicle. SBTAM is a useful tool to estimate VMT as it considers the interaction between different land uses based on socio-economic data such as population, households, and employment. Project VMT was calculated using the most current version of SBTAM. Adjustments in socio-economic data (households, population, and employment) were made to the appropriate traffic analysis zone (TAZ) within the SBTAM model to reflect the project’s proposed land uses.

Project VMT per Service Population (SP)

Service population is defined as the sum of population and employment. Since the Project does not have any residential component, the Project SP consists of employees only. The VMT per SP is the total VMT (including all trip purposes) divided by the number of workers derived from the SBTAM model. The VMT per SP is used to measure efficiency of VMT generated by all trip purposes. The Project VMT per SP calculated based on SBTAM is 35.0.

Heavy Truck VMT

The average trip length for heavy trucks were based on the data provided in Forecasting Metropolitan Commercial and Freight Travel (NCHRP Synthesis 384, Transportation Research Board, 2008) document. The document cites average internal trip lengths of 5.92 miles for light truck, 13.06 for medium truck, and 24.11 for heavy trucks. As a conservative measure, a trip length of 25 miles has been utilized for all trucks multiplied by the daily truck trips (3,171) estimated in the TIA based on Institute of Transportation Engineer (ITE) trip rates, resulting in a heavy truck daily VMT of 79,275.

Potential Impacts

As shown in Table 4.18-8, the project’s VMT per SP would exceed the threshold. As such, the project’s transportation impact is potentially significant based on the City of San Bernardino and SBCTA recommended thresholds.

**Table 4.18-8
 VMT IMPACT EVALUATION**

Threshold Option	Countywide Average	Project VMT	Change in VMT	Potentially Significant?
VMT per SP	31.6	35.0	+3.4 (10.8%)	YES

Mitigation Measures:

As indicated in the City of San Bernardino and SBCTA Guidelines, the following choices are available to the applicant:

- Modify the project’s built environment characteristics to reduce VMT generated by the project.
- Implement Transportation Demand Management (TDM) measures to reduce VMT generated by the project.
- Participate in a VMT fee program and/or VMT mitigation exchange/banking program (if they exist) to reduce VMT from the project or other land uses to achieve acceptable levels.

Transportation demand management (TDM) strategies have been evaluated for reducing VMT impacts determined to be potentially significant. TDM strategies cannot reduce significant VMT impacts to a level of less than significant, but the following mitigation measure shall be implemented in order to reduce AGSP generated VMT to the greatest extent feasible:

- TRAN-8:** *The applicable jurisdiction within which a future project under the AGSP is proposed shall require future Applicants to implement transportation demand management (TDM) strategies to reduce project VMT. The measures that shall be considered are, but are not necessarily limited to, the following:*
- *Future Building Operators shall prioritize employing local residents*
 - *Future Building Operators shall provide pedestrian network improvements*
 - *Future Building Operators shall provide traffic calming measures*
 - *Future Building Operators shall implement car-sharing program*
 - *Future Building Operators shall contribute to increased transit service frequency/speed*
 - *Future Building Operators shall encourage telecommuting and alternative work schedules*
 - *Future Building Operators shall provide ride-share programs*
 - *Future Building Operators shall provide on-site facilities to provide end of trip services for bicycling such as secure bike parking, storage lockers and showering facilities.*

The project proposes pedestrian sidewalks along roadways within the Specific Plan area. The project site is accessible by transit via OmniTrans Bus Route 15, which has stops at the following locations within or near the Specific Plan area:

- Tippecanoe Avenue at 3rd Street
- Del Rosa Drive at 3rd Street

- Del Rosa Drive at 6th Street
- Central Avenue at 5th Street
- Palm Avenue at 5th Street

The effectiveness of the above-noted TDM measures would be dependent on the ultimate building tenant(s), which are unknown at this time. Beyond project design and tenancy considerations, land use context is a major factor relevant to the potential application and effectiveness of TDM measures. More specifically, the land use context of the project is characteristically suburban. The project's suburban context acts to reduce the range of feasible TDM measures and their potential effectiveness.

Based on available research, for projects located within a suburban context, a maximum 10% reduction in VMT is achievable when combining multiple mitigation strategies. Due to limitations of project-level approaches to reducing VMT, the City or region may consider larger mitigation programs such as VMT mitigation banks and exchanges. VMT mitigation banks and exchanges have not yet been developed or tested. SBCTA is undertaking a study to evaluate the feasibility of a VMT mitigation bank or exchange to assist lead agencies in implementing SB 743.

Level of Significance: Significant and Unavoidable

The project's transportation impact based on VMT is potentially significant based on City of San Bernardino and SBCTA recommended thresholds. As the efficacy of TDM measures and reduction of VMT impacts below thresholds cannot be assured, the project's VMT impact is therefore considered significant and unavoidable.

TRAN-3 Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The AGSP would enable the development of an area approximately 678.13 acres in size, with up to 9,271,255.45 SF of Mixed Use Business Park uses and 75,000 SF of Hotel use. The circulation system within the Cities of Highland and San Bernardino has been well established, though as previously stated, has not yet been developed to buildout conditions. The proposed project, as stated above under issue TRAF-1, the project shall implement mitigation that would construct roadway improvements along each individual new AGSP project frontage to achieve full roadway width, including curb, sidewalk, and gutter, as indicated on the applicable Circulation Element (either the City of San Bernardino or City of Highland). These improvements will be installed to meet City and County standards, such that hazards due to geometric design features or incompatible uses would not occur. Furthermore, future projects will be required to undergo review by the jurisdiction within which a given project is proposed (City of Highland, City of San Bernardino, and in some cases IVDA and/or the San Manuel Band of Mission Indians [SMBMI]). Such review would ensure that individual project design would not result in an increase in hazards due to a geometric design feature or incompatible uses. Design of driveways, internal roadways, and intersections will be based on City Code, which sets the standard for such design. All roadway improvements and internal project improvements will be designed in a manner as to not create conflicts for motorists, pedestrians, or bicyclists traveling within and around each individual project site, which will ensure that future development under the AGSP will comply with both the Cities of Highland and San Bernardino General Plan goals and policies set forth for development compatibility with circulation (*San Bernardino General Plan Circulation Element Goals 6.2, 6.3, 6.4, 6.5, 6.6, 6.9, and 6.9, Policies 6.2.1, 6.3.4, 6.3.5, 6.3.6, 6.3.7, 6.4.8, 6.5.1, 6.5.2, 6.5.3, 6.5.4,*

6.6.4, 6.8.2, 6.9.1, 6.9.5 and 6.9.6 and City of Highland General Plan Circulation Element Goal 3.1, Policies 3-6, Goal 3.4, Policies 2, 3, 4, 6, 7, 8, 11, 12, and 13, Goal 3.4, Policy 8, Goal 3.6 Policies 1, 2, 4, and 5). As the Cities of Highland and San Bernardino implement full buildout of the roadways in accordance with the City of Highland and City of San Bernardino General Plans and as the opportunities for alternative modes of transportation continue to be enhanced, a minimal potential exists to increase hazards on the existing circulation system within the AGSP planning area.

Mitigation Measures: None Required

Level of Significance: Less Than Significant

TRAN-4 Would the project result in inadequate emergency access?

The AGSP planning area provides a conceptual layout of the Specific Plan area (Figure 3-2), with potential layout and orientation of buildings within the plan area. The existing grid street system of north-south and east-west streets would remain, with improvements needed to accommodate the AGSP related traffic.

Site access provisions to individual developments will be determined through the site plan review process, as site-specific development proposals are brought to the City of San Bernardino or City of Highland for processing. The Specific Plan will specify that any project trucks for the warehouse developments must be assigned to use 3rd Street or 5th Street to enter and exit the warehouse properties. In addition, to the extent possible, depending on the location and layout of a project parcel, site driveways for employee or customer traffic should be located on the north-south streets, to reduce the dependence on 6th Street for access to the area development. Mitigation is required to ensure that the above provisions are implemented concurrent with future development within the AGSP to prevent inadequate emergency access. Furthermore, due to the extent of the circulation system, adequate emergency access generally exists at present within the AGSP planning area. The only time a potential exists for inadequate emergency to occur would be during construction activities within the existing roadways. The AGSP will require future development within roadways to be required to develop project-specific traffic management plans whenever substantial construction activities could occur that can cause inadequate emergency access to an area of the AGSP planning area, which would minimize project-related impacts to emergency access and ensure that future development under the AGSP will comply with both the Cities of Highland and San Bernardino General Plan goals and policies set forth for provision of adequate emergency access as it pertains to circulation and site design (*San Bernardino General Plan Circulation Element Goals 6.2, 6.3, 6.4, 6.5, 6.6, 6.9, and 6.9, Policies 6.2.1, 6.3.4, 6.3.5, 6.3.6, 6.3.7, 6.4.8, 6.5.1, 6.5.2, 6.5.3, 6.5.4, 6.6.4, 6.8.2, 6.9.1, 6.9.5 and 6.9.6 and City of Highland General Plan Circulation Element Goal 3.1, Policies 3-6, Goal 3.4, Policies 2, 3, 4, 6, 7, 8, 11, 12, and 13, Goal 3.4, Policy 8, Goal 3.6 Policies 1, 2, 4, and 5*).

Mitigation Measures:

As stated above, the AGSP will specify that any project trucks for the warehouse developments must be assigned to use 3rd Street or 5th Street to enter and exit the warehouse properties. This will be accomplished by requiring that the warehouse building and site layout be designed to have all truck entrances on 3rd Street or 5th Street. No truck entrances will be located on 6th Street. Additionally, to the extent possible, depending on the location and layout of a project parcel, site driveways for employee or customer traffic should be located on the north-south streets, to reduce

the dependence on 6th Street for access to the area development. Those parcels with frontage on the north-south streets should be required to locate their passenger car driveways on the north-south streets.

Given the discussion above, the following mitigation measures are proposed to minimize adverse impacts related to inadequate emergency access that could occur as a result of AGSP implementation.

TRAN-9: *All future projects that require truck access within the AGSP planning area shall be designed such that all truck entrances are located on 3rd Street or 5th Street. No truck entrances shall be located on 6th Street.*

TRAN-10: *All future projects within the AGSP planning area with frontage on the north-south streets shall be required to locate their passenger car driveways on the north-south streets, except where the Applicant for a given project petitions to the City within which the project is located that this configuration would be infeasible due to a hazard deemed legitimate by the City.*

TRAN-11: *For projects that require construction within roadways within the AGSP planning area, the City within which the project is located shall require that contractors prepare a construction traffic control plan. Elements of the plan should include, but are not necessarily limited to, the following:*

- *Develop circulation and detour plans, if necessary, to minimize impacts to local street circulation. Use haul routes minimizing truck traffic on local roadways to the extent possible.*
- *To the extent feasible, and as needed to avoid adverse impacts on traffic flow, schedule truck trips outside of peak morning and evening commute hours.*
- *Install traffic control devices as specified in Caltrans' Manual of Traffic Controls for Construction and Maintenance Work Zones where needed to maintain safe driving conditions. Use flaggers and/or signage to safely direct traffic through construction work zones.*
- *For roadways requiring lane closures that would result in a single open lane, maintain alternate one-way traffic flow and utilize flagger-controls.*
- *Coordinate with facility owners or administrators of sensitive land uses such as police and fire stations, hospitals, and schools. Provide advance notification to the facility owner or operator of the timing, location, and duration of construction activities.*

Level of Significance: Less Than Significant With Mitigation Incorporated

Implementation of MM **TRAN-9** would ensure that adequate truck access is provided along the appropriate corridors, enabling greater emergency access due to greater capacities and more favorable lane configurations for trucks within 3rd Street and 5th Street compared to other roadways within the AGSP. Additionally, MM **TRAN-10** would ensure adequate access for passenger cars along north-south roadways within the AGSP, which would minimize conflicts with truck access for future development within the AGSP planning area, thereby minimizing potential emergency access conflicts. Traffic management during construction within roadways, as enforced by MM **TRAN-11**, would also enable adequate emergency access to continue as development associated with the AGSP occurs. The above measures are necessary to minimize AGSP related conflicts with emergency access, and with the above measures, no adverse impacts under this issue are anticipated to occur.

4.18.7 Mitigation Measures

There are ten mitigation measures that must be implemented to offset potentially significant impacts from the buildout of the AGSP. The basis for implementing these measures is provided in the text of the preceding Project Impact analysis.

TRAN-1: *Future development under the AGSP shall require fair share contribution towards the deficient roadway segments and intersections outlined under Tables 4.18-4 through 4.18-7. Fair share contribution shall be contributed by future projects within the AGSP in the following manners:*

- *Fair share contribution shall be tabulated as a percentage of the total AGSP project cost (\$3,465,119) that shall be based on the square footage of a given future project in relation to the allowable square footage within the AGSP. For instance, if a project would contribute 500,000 square feet (SF) of the allowable 9,199,491 SF within the AGSP, the project's fair share would be to contribute 5.44% (equal to \$188,332.11) of the total fair share cost for AGSP related traffic (\$3,465,119);*
- *The City of San Bernardino, City of Highland, and the Inland Valley Development Agency (IVDA) shall establish a community facilities district or comparable collaborative mechanism that each future project within the AGSP shall pay into to fund roadway the necessary roadway infrastructure to remedy deficiencies identified in Tables 4.18-4 through 4.18-7.*

TRAN-2: *Every new project within the AGSP shall be required to construct the roadway improvements along the project frontage to achieve full roadway width, including curb, sidewalk, gutter, and width required for bike lanes, where applicable as indicated on the applicable Circulation Element (either the City of San Bernardino or City of Highland). Where these improvements occur at an existing bus stop, the project proponent shall be required to improve the bus stop as directed by OmniTrans and the City within which the project is developed.*

TRAN-3: *Where a future project is not located within a quarter mile of an existing OmniTrans bus stop, the project proponent shall be required to consult with the City within which the project is proposed and/or with OmniTrans to determine whether additional stops along this route or other routes are necessary to accommodate future AGSP development as development within the AGSP planning area increases. Where OmniTrans and/or the City determine that a new bus stop is appropriate, the project proponent shall be required to either install a bus stop meeting OmniTrans' standards or shall provide the funds to OmniTrans to develop the bus stop.*

TRAN-4: *Future development under the AGSP shall be required to contribute a fair share contribution towards the Regional Multi-Purpose Trail along City Creek. The City of San Bernardino, City of Highland, and the Inland Valley Development Agency (IVDA) shall establish a community facilities district or comparable collaborative mechanism that each future project within the AGSP shall pay into to fund the City Creek Regional Multi-Purpose Trail that would be located within the confines of the AGSP planning area.*

TRAN-5: *Future development under the AGSP shall be required to provide bike racks where deemed appropriate by the corresponding City in conjunction with frontage improvements. Additionally, future developments within the AGSP shall provide adequate and secure bicycle storage facilities through the*

provision of bicycle parking spaces equaling 10% of the total number of automobile parking spaces required for a given development.

TRAN-6: *Future projects shall incorporate truck parking lots within or near the AGSP Planning Area to allow for truck queuing. This can be accomplished on an individual project basis as part of project design, or alternatively the City of San Bernardino, City of Highland, and the Inland Valley Development Agency (IVDA) shall establish a mechanism by which future project proponents can contribute to a funding mechanism to be directed to the development of truck parking lots by the above agency/Cities.*

TRAN-7: *Every new project within the AGSP shall be required to contribute its fair share to installing signals at the following intersections:*

- *Sterling Avenue at 6th Street*
- *Victoria Avenue at 6th Street*
- *Central Avenue at 3rd Street*

The Cities within which the above intersections are located, at which signals would be installed shall determine the appropriate timing in which to install a signal at the above intersections based on actual peak hour operations, engineering judgement and signal peak hour warrant analyses.

TRAN-8: *The applicable jurisdiction within which a future project under the AGSP is proposed shall require future Applicants to implement transportation demand management (TDM) strategies to reduce project VMT. The measures that shall be considered are, but are not necessarily limited to, the following:*

- *Future Building Operators shall prioritize employing local residents*
- *Future Building Operators shall provide pedestrian network improvements*
- *Future Building Operators shall provide traffic calming measures*
- *Future Building Operators shall implement car-sharing program*
- *Future Building Operators shall contribute to increased transit service frequency/speed*
- *Future Building Operators shall encourage telecommuting and alternative work schedules*
- *Future Building Operators shall provide ride-share programs.*
- *Future Building Operators shall provide on-site facilities to provide end of trip services for bicycling such as secure bike parking, storage lockers and showering facilities.*

TRAN-9: *All future projects that require truck access within the AGSP planning area shall be designed such that all truck entrances are located on 3rd Street or 5th Street. No truck entrances shall be located on 6th Street.*

TRAN-10: *All future projects within the AGSP planning area with frontage on the north-south streets shall be required to locate their passenger car driveways on the north-south streets, except where the Applicant for a given project petitions to the City within which the project is located that this configuration would be infeasible due to a hazard deemed legitimate by the City.*

TRAN-11: *For projects that require construction within roadways within the AGSP planning area, the City within which the project is located shall require that contractors prepare a construction traffic control plan. Elements of the plan should include, but are not necessarily limited to, the following:*

- **Develop circulation and detour plans, if necessary, to minimize impacts to local street circulation. Use haul routes minimizing truck traffic on local roadways to the extent possible.**
- **To the extent feasible, and as needed to avoid adverse impacts on traffic flow, schedule truck trips outside of peak morning and evening commute hours.**
- **Install traffic control devices as specified in Caltrans' Manual of Traffic Controls for Construction and Maintenance Work Zones where needed to maintain safe driving conditions. Use flaggers and/or signage to safely direct traffic through construction work zones.**
- **For roadways requiring lane closures that would result in a single open lane, maintain alternate one-way traffic flow and utilize flagger-controls.**
- **Coordinate with facility owners or administrators of sensitive land uses such as police and fire stations, hospitals, and schools. Provide advance notification to the facility owner or operator of the timing, location, and duration of construction activities.**

4.18.8 Cumulative Impacts

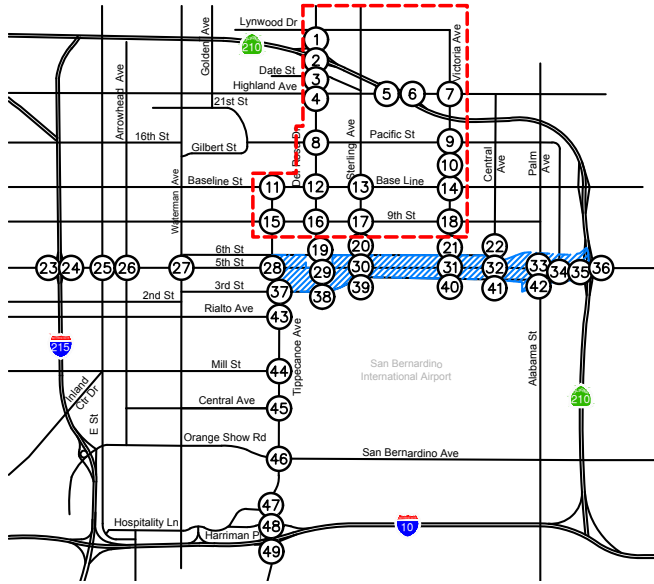
Level of Significance: Less Than Significant With Mitigation Incorporated

The TIS, provided as Appendix 11a to Volume 2 of this DPEIR, is inherently cumulative because it examines the transportation effects of development of the AGSP over a 20-year horizon, and all impacts are weighted against the Future 2020 Build-Out Plus Project scenario. Cumulative trip generation within the AGSP based on buildout of the available land and the areas receiving new land use designations within the AGSP is forecast to be 30,972 net PCE trips on a daily basis, with 1,772 net PCE trips in the morning peak hour, and 2,220 net PCE trips in the evening peak hour. When these trips are placed on the already existing circulation system, mitigation measures must be implemented to maintain adequate roadway traffic flow on 15 road segments, and additionally, 10 intersections will need to be modified to maintain an acceptable LOS. With the implementation of MMs **TRAN-1** through **TRAN-11**, cumulative impacts to the circulation system would be minimized. However, the VMT Analysis, provided as Appendix 11b to Volume 2 of this DPEIR, concluded that the AGSP would contribute significant vehicle miles travelled. The VMT analysis is also inherently cumulative as it analyzes the impacts of vehicle miles travelled in the context of the cumulative vehicle miles travelled in the Cities and region within which a given project is located. As such, given that the project would exceed the VMT thresholds set forth by the Cities of Highland and San Bernardino, the AGSP would contribute significant cumulative vehicle miles travelled within the project area and region. Thus, the proposed project is forecast to make a substantial contribution to cumulative circulation or transportation systems within the City and surrounding communities.

4.18.9 Unavoidable Adverse Impacts

Development associated with implementation of the proposed AGSP and cumulative development would result in unavoidable significant VMT transportation or circulation system impacts. All other transportation or circulation system impacts are either less than significant or can be reduced to a less than significant impact with implementation of mitigation measures.

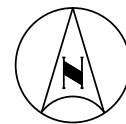
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1. Del Rosa Ave at SR-210 WB Ramps	2. Del Rosa Ave at SR-210 EB Ramps
3. Del Rosa Ave at Date St	4. Del Rosa Ave at Highland Ave

5. Highland Ave at SR-210 EB Off-Ramp	6. Highland Ave at SR-210 WB Off-Ramp	7. Victoria Ave at Highland Ave	8. Del Rosa Dr at Pacific St	9. Victoria Ave at Pacific St
10. Victoria Ave at 14th St	11. Tippecanoe Ave at Baseline St	12. Del Rosa Dr at Baseline St	13. Sterling Ave at Base Line	14. Victoria Ave at Base Line
15. Tippecanoe Ave at 9th St	16. Del Rosa Ave at 9th St	17. Sterling Ave at 9th St	18. Victoria Ave at 9th St	

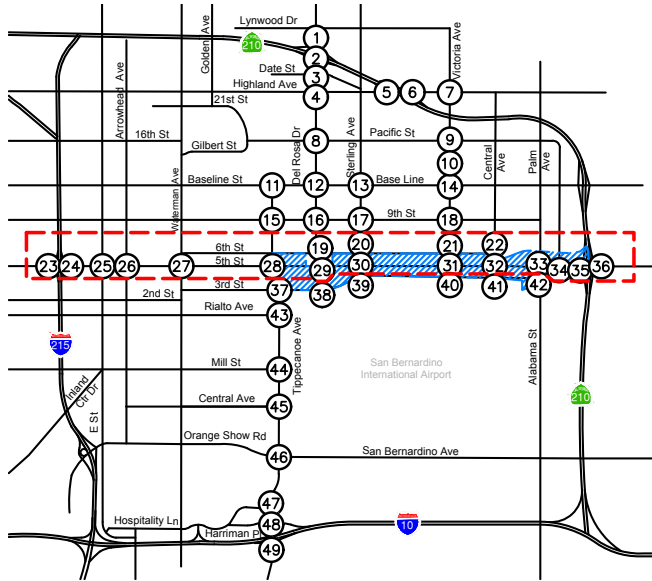
FIGURE 4.18-1
EXISTING LANE CONFIGURATION
AND TRAFFIC CONTROL



NOT TO SCALE

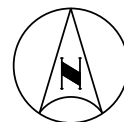
LEGEND:

	= Study Intersection
	= Turn or Through Lane
	= Signal
	= Stop Sign
	= Defacto Right Turn
	= Intersection Analysis Boundary (by Sheet)



19. Del Rosa Dr at 6th St		20. Sterling Ave at 6th St	
21. Victoria Ave at 6th St		22. Central Ave at 6th St	
23. I-215 SB Ramps at 5th St	24. I-215 NB Ramps at 5th St	25. E Street at 5th St	26. Arrowhead Ave at 5th St
27. Waterman Ave at 5th St	28. Tippecanoe Ave at 5th St	29. Del Rosa Dr at 5th St	30. Sterling Ave at 5th St
31. Victoria Ave at 5th St	32. Central Ave at 5th St	33. Palm Ave at 5th St	34. Church Ave at 5th St
35. SR-210 EB Ramps at 5th St	36. SR-210 WB Ramps at 5th St		

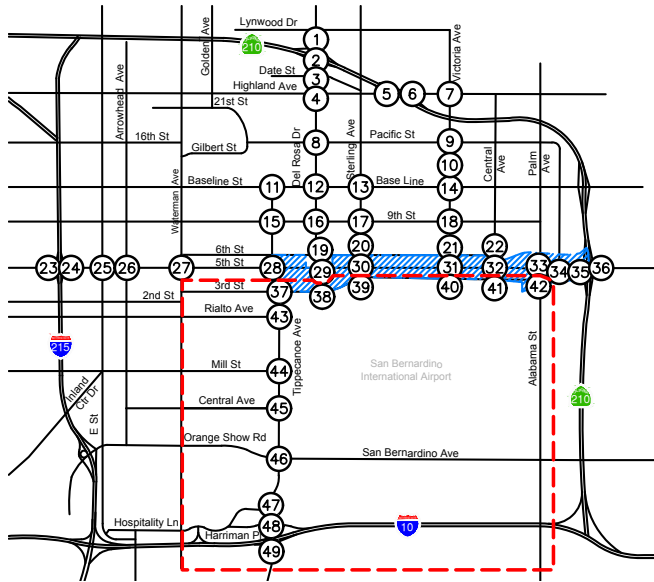
FIGURE 4.18-2
EXISTING LANE CONFIGURATION
AND TRAFFIC CONTROL



NOT TO SCALE

LEGEND:

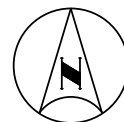
- = Study Intersection
- = Turn or Through Lane
- = Signal
- = Stop Sign
- = Defacto Right Turn
- = Intersection Analysis Boundary (by Sheet)



37. Tippecanoe Ave at 3rd St	38. Del Rosa Dr at 3rd St
39. Sterling Ave at 3rd St	40. Victoria Ave at 3rd St

41. Central Ave at 3rd St	42. Palm Ave at 3rd St	43. Tippecanoe Ave at Rialto Ave	44. Tippecanoe Ave at Mill St	45. Tippecanoe Ave at Central Ave
46. Tippecanoe Ave at Orange Show Rd	47. Tippecanoe Ave at Hospitality Ln	48. Tippecanoe Ave at I-10 WB Ramps	49. Tippecanoe Ave at I-10 EB Ramps	

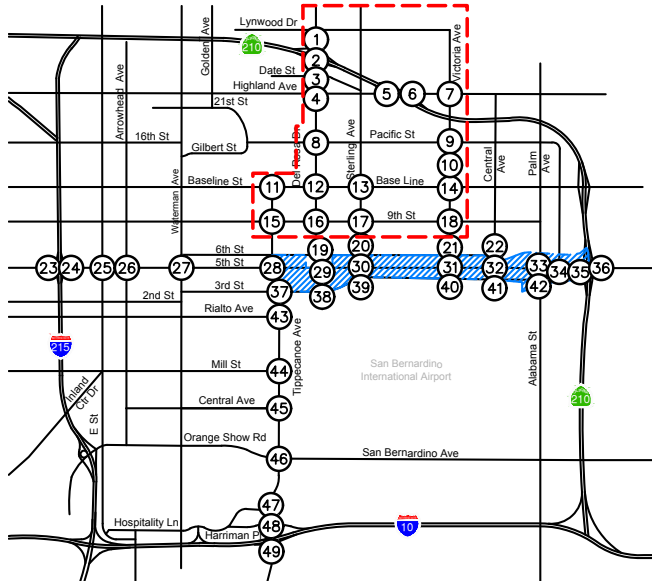
FIGURE 4.18-3
EXISTING LANE CONFIGURATION
AND TRAFFIC CONTROL



NOT TO SCALE

LEGEND:

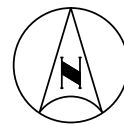
- = Study Intersection
- = Turn or Through Lane
- = Signal
- = Stop Sign
- D = Defacto Right Turn
- F = Free Right Turn
- OV = Right-Turn Overlap
- = Intersection Analysis Boundary (by Sheet)



1. Del Rosa Ave at SR-210 WB Ramps	2. Del Rosa Ave at SR-210 EB Ramps
<p>← 664/373 ← 443/353</p> <p>↖ 121/226 ↗ 125/128</p> <p>↖ 587/627 ↗ 543/713</p>	<p>← 402/361 ← 170/121</p> <p>↖ 360/387 ↗ 695/715</p> <p>↖ 817/949 ↗ 84/120</p>
3. Del Rosa Ave at Date St	4. Del Rosa Ave at Highland Ave
<p>↖ 69/113 ↗ 846/727 ↖ 179/240</p> <p>↖ 112/126 ↗ 31/57 ↖ 39/51</p> <p>↖ 30/88 ↗ 628/736 ↖ 21/48</p>	<p>↖ 123/113 ↗ 568/406 ↖ 122/165</p> <p>↖ 51/174 ↗ 267/628 ↖ 119/160</p> <p>↖ 104/174 ↗ 412/510 ↖ 36/65</p>

5. Highland Ave at SR-210 EB Off-Ramp	6. Highland Ave at SR-210 WB Off-Ramp	7. Victoria Ave at Highland Ave	8. Del Rosa Dr at Pacific St	9. Victoria Ave at Pacific St
<p>↖ 160/155 ↗ 911/1025 ← 329/577</p> <p>293/702 →</p>	<p>↖ 6/9 ↗ 1/3 ↖ 6/8 ← 933/1488</p> <p>2/14 917/1358 →</p> <p>↖ 230/263 ↗ 144/129</p>	<p>↖ 284/591 ↗ 215/146 ↖ 68/183</p> <p>↖ 88/127 ↗ 348/567 ↖ 45/62</p> <p>448/672 372/507 119/164 →</p> <p>241/237 243/191 42/57 →</p>	<p>↖ 200/146 ↗ 342/319 ↖ 38/65</p> <p>↖ 154/147 ↗ 236/339 ↖ 27/25</p> <p>44/20 214/402 28/69 →</p>	<p>↖ 103/66 ↗ 282/279 ↖ 58/54</p> <p>↖ 89/60 ↗ 331/247 ↖ 50/42</p> <p>113/71 252/358 206/190 →</p> <p>165/145 321/379 30/55 →</p>
10. Victoria Ave at 14th St	11. Tippecanoe Ave at Baseline St	12. Del Rosa Dr at Baseline St	13. Sterling Ave at Base Line	14. Victoria Ave at Base Line
<p>↖ 2/12 ↗ 523/471 ↖ 27/31</p> <p>2/13 0/10 0/3 →</p> <p>0/27 442/17 11/54 →</p>	<p>← 446/499 ↖ 191/165</p> <p>306/651 198/167 →</p> <p>167/283 161/249 →</p>	<p>↖ 125/90 ↗ 279/204 ↖ 31/81</p> <p>↖ 49/127 ↗ 232/693 ↖ 134/37</p> <p>50/44 208/314 77/64 →</p>	<p>↖ 66/83 ↗ 398/309 ↖ 163/202</p> <p>↖ 60/127 ↗ 225/551 ↖ 40/49</p> <p>28/69 252/447 35/76 →</p>	<p>↖ 122/122 ↗ 329/276 ↖ 85/99</p> <p>↖ 74/98 ↗ 245/327 ↖ 33/38</p> <p>105/115 211/494 30/59 →</p> <p>48/62 265/339 20/74 →</p>
15. Tippecanoe Ave at 9th St	16. Del Rosa Ave at 9th St	17. Sterling Ave at 9th St	18. Victoria Ave at 9th St	
<p>↖ 23/35 ↗ 349/265 ↖ 24/12</p> <p>↖ 21/22 ↗ 295/246 ↖ 72/48</p> <p>27/61 351/370 81/75 →</p> <p>111/116 251/511 76/57 →</p>	<p>↖ 70/43 ↗ 199/261 ↖ 130/52</p> <p>↖ 44/46 ↗ 233/287 ↖ 31/40</p> <p>48/38 421/219 123/65 →</p> <p>78/60 119/390 137/75 →</p>	<p>↖ 83/75 ↗ 362/234 ↖ 55/71</p> <p>↖ 85/73 ↗ 256/176 ↖ 52/50</p> <p>80/97 172/270 22/34 →</p> <p>22/33 171/360 36/106 →</p>	<p>↖ 65/60 ↗ 249/216 ↖ 44/59</p> <p>↖ 55/56 ↗ 99/120 ↖ 32/19</p> <p>54/83 91/178 40/45 →</p> <p>45/46 161/303 16/27 →</p>	

Note: Existing volumes reflect PCE adjustments.
See PCE Worksheets in Appendix C.

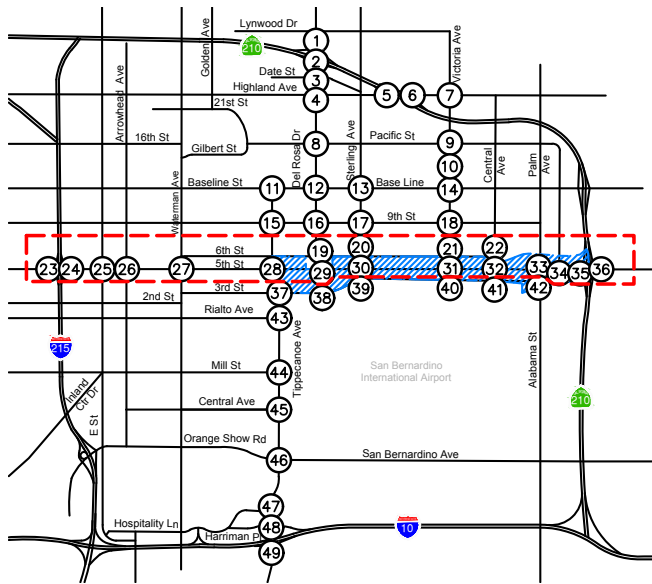


NOT TO SCALE

LEGEND:

- (X) = Study Intersection
- xx/yy = AM/PM Peak Hour Turning Movement Volumes
- [Red dashed box] = Intersection Analysis Boundary (by Sheet)

FIGURE 4.18-4
EXISTING PEAK HOUR TRAFFIC VOLUMES



<p>19. Del Rosa Dr at 6th St</p> <p>95/30 274/230 43/14</p> <p>43/19 144/86 86/39</p> <p>155/55 144/124 53/14</p> <p>71/10 199/313 37/122</p>	<p>20. Sterling Ave at 6th St</p> <p>43/23 469/237 24/26</p> <p>14/18 116/76 9/10</p> <p>37/55 102/104 12/11</p> <p>12/15 138/458 9/38</p>
<p>21. Victoria Ave at 6th St</p> <p>23/24 299/203 13/16</p> <p>18/10 32/29 9/3</p> <p>23/26 33/44 41/25</p> <p>31/46 120/341 1/5</p>	<p>22. Central Ave at 6th St</p> <p>33/30 107/75</p> <p>44/50</p> <p>27/27</p> <p>9/22 80/173</p>

<p>23. I-215 SB Ramps at 5th St</p> <p>193/186 5/6 532/198</p> <p>504/805 315/498</p> <p>442/589 350/393</p>	<p>24. I-215 NB Ramps at 5th St</p> <p>148/644 509/925</p> <p>150/225 840/561</p> <p>290/380 0/5 542/418</p>	<p>25. E Street at 5th St</p> <p>17/60 132/163 10/21</p> <p>7/20 421/838 7/33</p> <p>75/26 937/543 37/42</p> <p>27/94 102/281 20/27</p>	<p>26. Arrowhead Ave at 5th St</p> <p>24/51 174/142 26/27</p> <p>12/20 394/588 39/39</p> <p>43/46 628/490 131/30</p> <p>36/95 98/305 32/64</p>	<p>27. Waterman Ave at 5th St</p> <p>110/132 519/574 14/52</p> <p>16/33 297/212 76/62</p> <p>70/137 169/395 153/132</p> <p>117/143 382/678 48/97</p>
<p>28. Tippecanoe Ave at 5th St</p> <p>41/24 380/297 17/35</p> <p>19/28 193/122 20/26</p> <p>17/59 55/414 32/48</p> <p>36/57 176/468 11/34</p>	<p>29. Del Rosa Dr at 5th St</p> <p>49/32 316/215 32/48</p> <p>47/36 284/119 27/16</p> <p>64/71 69/398 16/18</p> <p>8/21 192/343 7/24</p>	<p>30. Sterling Ave at 5th St</p> <p>55/42 330/182 9/35</p> <p>10/30 269/124 24/11</p> <p>22/83 73/366 11/29</p> <p>8/6 97/310 2/14</p>	<p>31. Victoria Ave at 5th St</p> <p>30/14 230/137 76/75</p> <p>78/109 266/138 257/30</p> <p>9/48 60/362 3/11</p> <p>1/2 74/248 13/116</p>	<p>32. Central Ave at 5th St</p> <p>33/14 56/31 42/50</p> <p>44/73 683/299 33/6</p> <p>15/21 191/616 14/5</p> <p>5/2 4/110</p>
<p>33. Palm Ave at 5th St</p> <p>73/30 584/246 125/174</p> <p>92/132 568/250 358/190</p> <p>11/70 203/700 63/60</p> <p>33/88 150/569 258/534</p>	<p>34. Church Ave at 5th St</p> <p>84/30 154/79</p> <p>70/77 983/511</p> <p>25/58 564/1317</p>	<p>35. SR-210 EB Ramps at 5th St</p> <p>121/118 7/6 122/310</p> <p>951/482 745/279</p> <p>326/933 396/489</p>	<p>36. SR-210 WB Ramps at 5th St</p> <p>392/267 1336/575</p> <p>82/182 371/1041</p> <p>363/207 319/435</p>	

Note: Existing volumes reflect PCE adjustments. See PCE Worksheets in Appendix C.

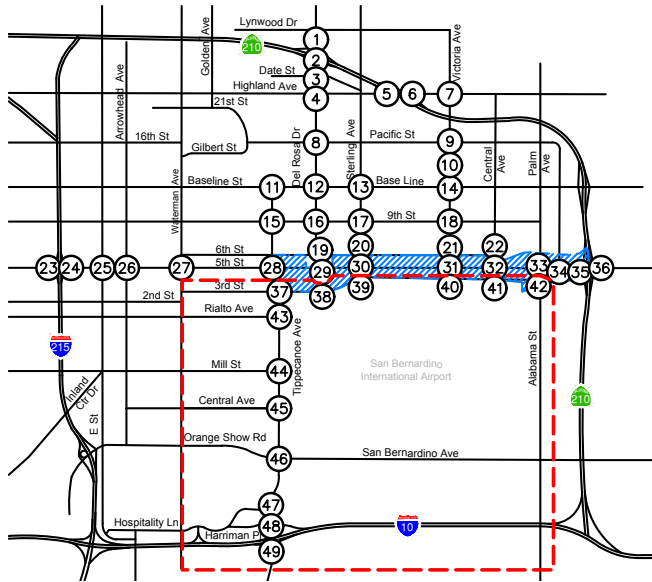


NOT TO SCALE

LEGEND:

- (X) = Study Intersection
- xx/yy = AM/PM Peak Hour Turning Movement Volumes
- [Red dashed box] = Intersection Analysis Boundary (by Sheet)

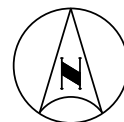
**FIGURE 4.18-5
EXISTING PEAK HOUR TRAFFIC VOLUMES**



37. Tippecanoe Ave at 3rd St 	38. Del Rosa Dr at 3rd St
39. Sterling Ave at 3rd St 	40. Victoria Ave at 3rd St

41. Central Ave at 3rd St 	42. Palm Ave at 3rd St 	43. Tippecanoe Ave at Rialto Ave 	44. Tippecanoe Ave at Mill St 	45. Tippecanoe Ave at Central Ave
46. Tippecanoe Ave at Orange Show Rd 	47. Tippecanoe Ave at Hospitality Ln 	48. Tippecanoe Ave at I-10 WB Ramps 	49. Tippecanoe Ave at I-10 EB Ramps 	

Note: Existing volumes reflect PCE adjustments.
See PCE Worksheets in Appendix C.



NOT TO SCALE

LEGEND:

(X) = Study Intersection

xx/yy = AM/PM Peak Hour Turning Movement Volumes

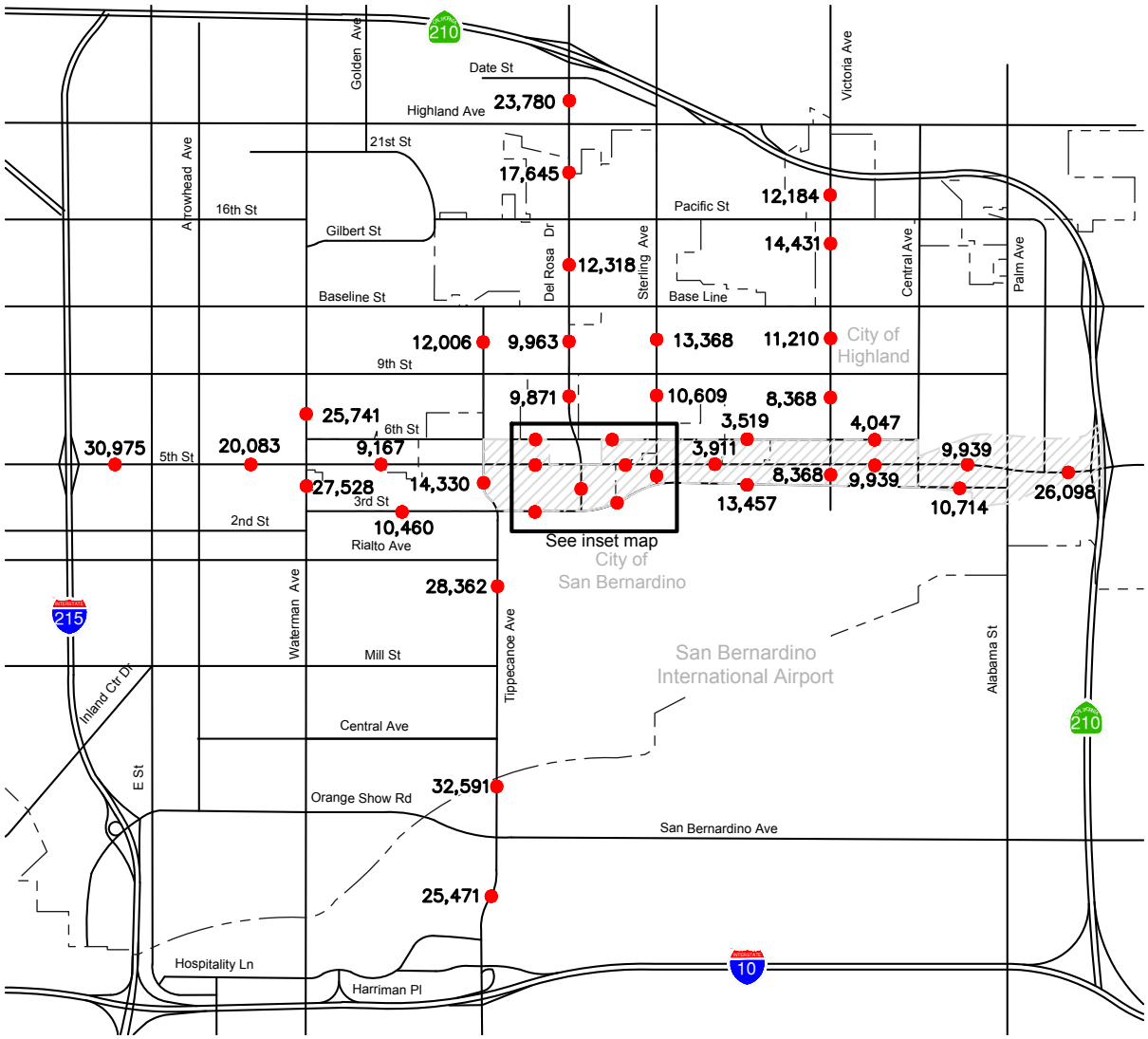
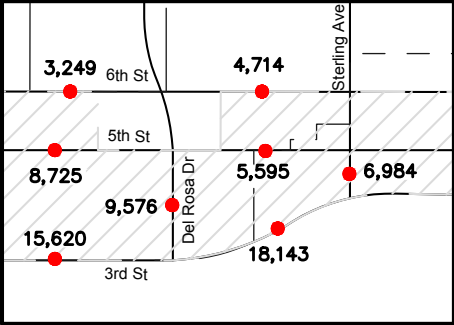
[Red dashed box] = Intersection Analysis Boundary (by Sheet)

FIGURE 4.18-6
EXISTING PEAK HOUR TRAFFIC VOLUMES



NOT TO SCALE

Inset Map



LEGEND:

- = Specific Plan Boundary
- = Average Daily Traffic Volume

FIGURE 4.18-7 EXISTING AVERAGE DAILY ROADWAY VOLUMES



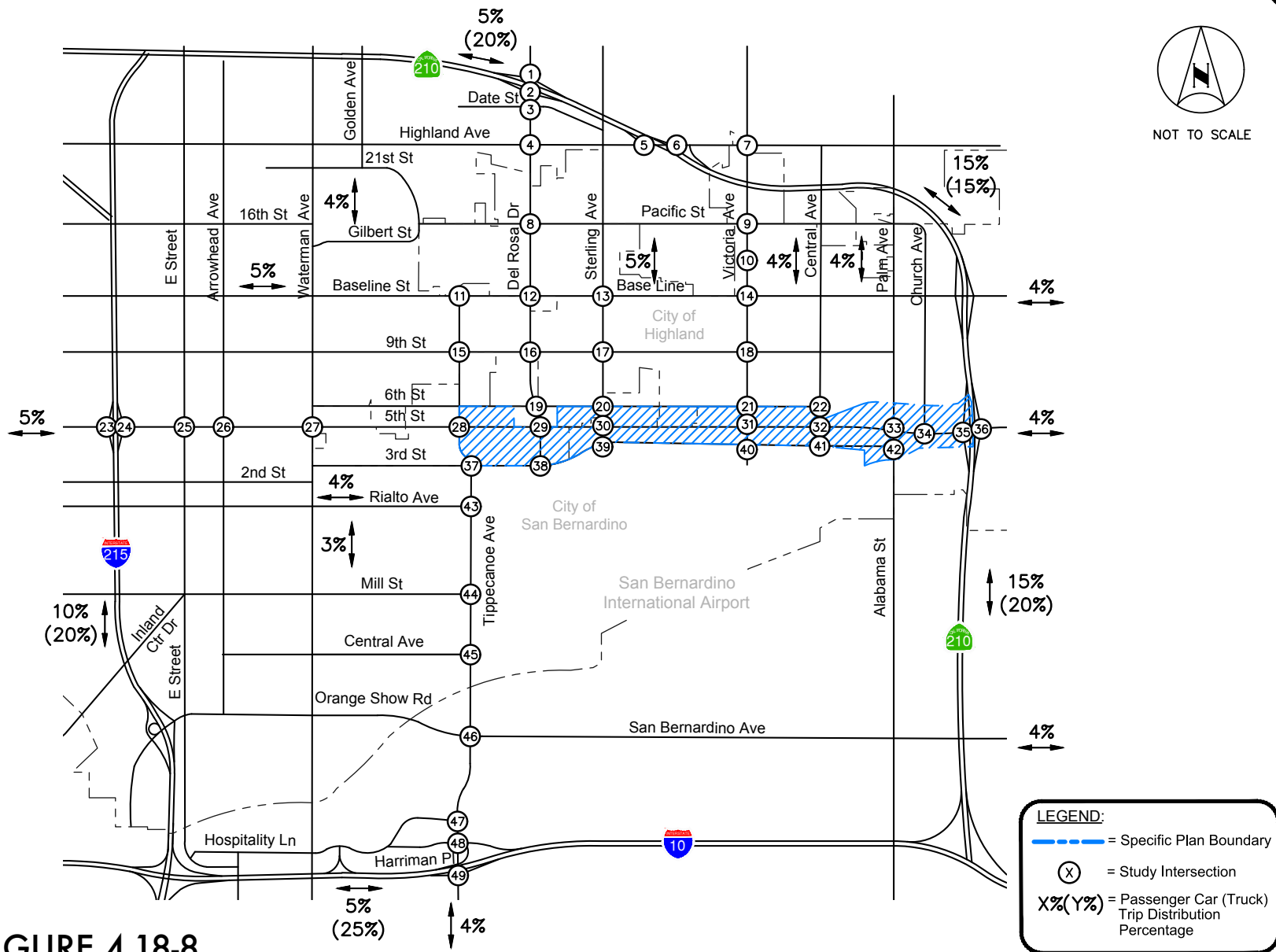
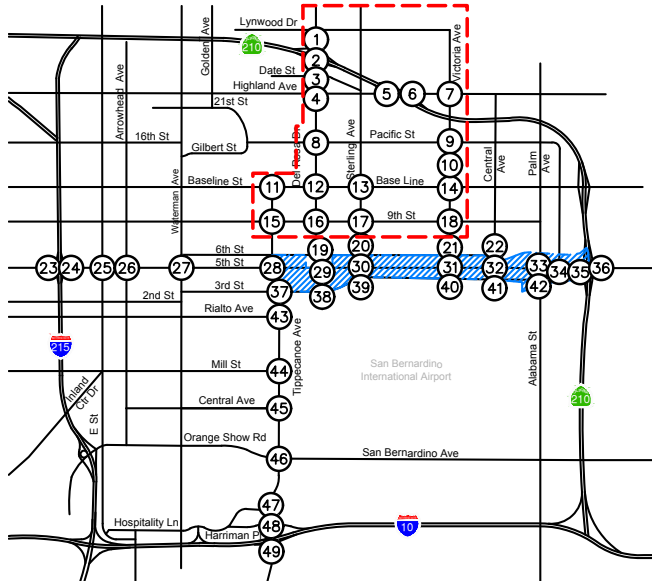
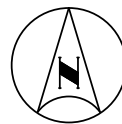


FIGURE 4.18-8
PROJECT TRIP DISTRIBUTION



1. Del Rosa Ave at SR-210 WB Ramps	2. Del Rosa Ave at SR-210 EB Ramps
15/68 →	76/18 → 15/68 →
3. Del Rosa Ave at Date St	4. Del Rosa Ave at Highland Ave
←50/12 ←26/6 4/14	←50/12
11/54 ↑	11/54 ↑

5. Highland Ave at SR-210 EB Off-Ramp	6. Highland Ave at SR-210 WB Off-Ramp	7. Victoria Ave at Highland Ave	8. Del Rosa Dr at Pacific St	9. Victoria Ave at Pacific St
←46/19 ←5/20	←18/89	←39/16	←50/12	←68/30
	29/14 →	29/14 → 18/89 → 6/51 →	11/54 ↑	17/5 → 24/140 →
10. Victoria Ave at 14th St	11. Tippecanoe Ave at Baseline St	12. Del Rosa Dr at Baseline St	13. Sterling Ave at Base Line	14. Victoria Ave at Base Line
←85/35	←17/86	←50/12 ←0/10	←76/30	←85/35
24/140 ↑	70/36 → 19/4 →	70/36 → 17/76 → 11/54 →	0/10 → 14/58 →	24/140 →
15. Tippecanoe Ave at 9th St	16. Del Rosa Ave at 9th St	17. Sterling Ave at 9th St	18. Victoria Ave at 9th St	
←19/4	←120/48	←45/21 ←31/9 4/14	←85/35	
	28/130 ↑	10/54 →	24/140 ↑	



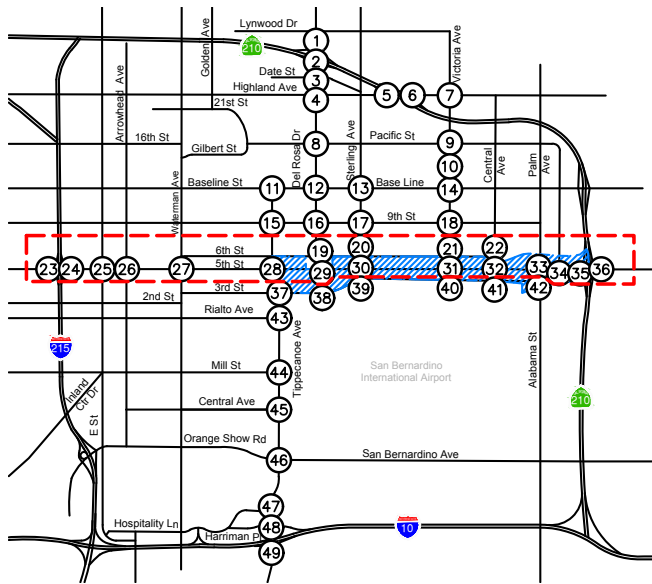
NOT TO SCALE

LEGEND:

- (X) = Study Intersection
- xx/yy = AM/PM Peak Hour Turning Movement Volumes

 = Intersection Analysis Boundary (by Sheet)

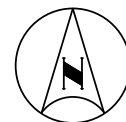
**FIGURE 4.18-9
PROJECT-RELATED
PEAK HOUR TRAFFIC VOLUMES**



<p>19. Del Rosa Dr at 6th St</p> <p>3/1, 92/39, 25/8, 6/29, 10/13, 0/5</p> <p>1/3, 11/11, 4/26, 20/4, 21/98, 4/1</p>	<p>20. Sterling Ave at 6th St</p> <p>5/2, 34/17, 6/2, 2/8, 18/21, 45/78</p> <p>1/6, 27/35, 18/4, 7/40, 21/5</p>
<p>21. Victoria Ave at 6th St</p> <p>22/4, 38/24, 25/7, 3/11, 51/39, 4/2</p> <p>2/10, 44/104, 3/1, 28/6, 19/119, 21/5</p>	<p>22. Central Ave at 6th St</p> <p>54/12, 4/0, 6/26, 56/114, 26/6, 4/40</p>

<p>23. I-215 SB Ramps at 5th St</p> <p>←15/64, 38/221</p> <p>50/24 →</p>	<p>24. I-215 NB Ramps at 5th St</p> <p>←53/285</p> <p>50/24 →, 194/54 ↗</p>	<p>25. E Street at 5th St</p> <p>←53/285</p> <p>244/78 →</p>	<p>26. Arrowhead Ave at 5th St</p> <p>←53/285</p> <p>244/78 →</p>	<p>27. Waterman Ave at 5th St</p> <p>3/17, 0/8, 50/268, 4/19</p> <p>244/78 →, 25/4 ↗</p>
<p>28. Tippecanoe Ave at 5th St</p> <p>←1/5, 14/3, 3/16, 44/243, 13/70</p> <p>22/4, 196/68, 51/10, 10/52, 5/1, 67/14</p>	<p>29. Del Rosa Dr at 5th St</p> <p>13/3, 24/10, 59/57, 33/64, 138/265, 2/9</p> <p>3/14, 220/174, 9/25, 8/2</p>	<p>30. Sterling Ave at 5th St</p> <p>48/45, 18/47, 13/3, 18/10, 149/206, 24/76</p> <p>13/16, 220/220, 14/47, 21/41, 15/23, 84/18</p>	<p>31. Victoria Ave at 5th St</p> <p>13/4, 17/20, 15/3, 34/57, 262/219</p> <p>25/36, 196/285, 2/1, 9/37</p>	<p>32. Central Ave at 5th St</p> <p>4/0, 56/114, 26/6, 320/225</p> <p>4/40, 161/279</p>
<p>33. Palm Ave at 5th St</p> <p>10/2, 6/16, 6/2, 0/10, 382/157, 101/83</p> <p>0/10, 148/402, 5/38, 10/2, 2/16, 3/1</p>	<p>34. Church Ave at 5th St</p> <p>←521/167</p> <p>99/436 →</p>	<p>35. SR-210 EB Ramps at 5th St</p> <p>←240/76, ←281/91</p> <p>80/329, 53/284</p>	<p>36. SR-210 WB Ramps at 5th St</p> <p>←39/16</p> <p>74/278, 6/51, 242/75</p>	

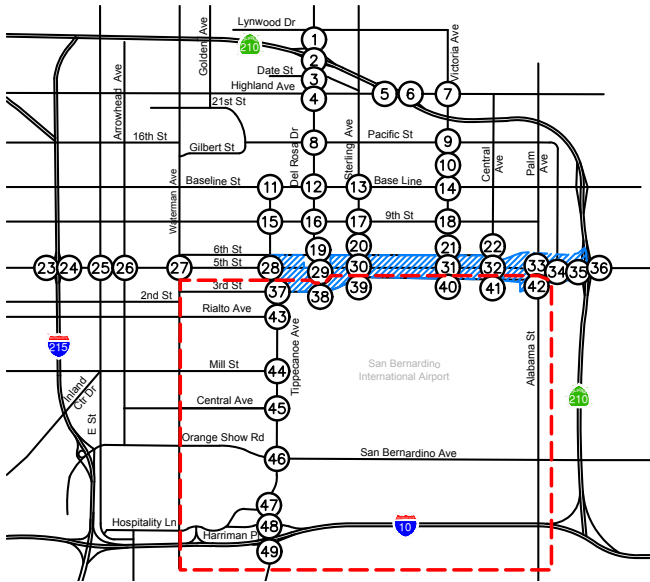
FIGURE 4.18-10
PROJECT-RELATED
PEAK HOUR TRAFFIC VOLUMES



NOT TO SCALE

LEGEND:

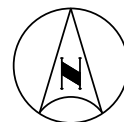
- (X) = Study Intersection
- xx/yy = AM/PM Peak Hour Turning Movement Volumes
- [Red dashed box] = Intersection Analysis Boundary (by Sheet)



37. Tippecanoe Ave at 3rd St	38. Del Rosa Dr at 3rd St																		
<table border="1"> <tr> <td>←14/75</td> <td>10/52</td> </tr> <tr> <td>51/10</td> <td>←3/47</td> </tr> <tr> <td></td> <td>28/170</td> </tr> <tr> <td>42/6 →</td> <td>72/15</td> </tr> <tr> <td></td> <td>139/65</td> </tr> </table>	←14/75	10/52	51/10	←3/47		28/170	42/6 →	72/15		139/65	<table border="1"> <tr> <td>←17/17</td> <td>←2/9</td> </tr> <tr> <td>9/2</td> <td>←60/225</td> </tr> <tr> <td>15/18</td> <td></td> </tr> <tr> <td>191/98 →</td> <td></td> </tr> </table>	←17/17	←2/9	9/2	←60/225	15/18		191/98 →	
←14/75	10/52																		
51/10	←3/47																		
	28/170																		
42/6 →	72/15																		
	139/65																		
←17/17	←2/9																		
9/2	←60/225																		
15/18																			
191/98 →																			
39. Sterling Ave at 3rd St	40. Victoria Ave at 3rd St																		
<table border="1"> <tr> <td>33/112</td> <td>←23/58</td> </tr> <tr> <td>95/21</td> <td>←25/61</td> </tr> <tr> <td>79/89 →</td> <td>40/97</td> </tr> </table>	33/112	←23/58	95/21	←25/61	79/89 →	40/97	<table border="1"> <tr> <td>6/1</td> <td>←9/26</td> </tr> <tr> <td>2/12</td> <td>←86/137</td> </tr> <tr> <td>73/161 →</td> <td></td> </tr> </table>	6/1	←9/26	2/12	←86/137	73/161 →							
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95/21	←25/61																		
79/89 →	40/97																		
6/1	←9/26																		
2/12	←86/137																		
73/161 →																			

41. Central Ave at 3rd St	42. Palm Ave at 3rd St	43. Tippecanoe Ave at Rialto Ave	44. Tippecanoe Ave at Mill St	45. Tippecanoe Ave at Central Ave																														
<table border="1"> <tr> <td>←102/147</td> <td></td> </tr> <tr> <td>67/186 →</td> <td></td> </tr> </table>	←102/147		67/186 →		<table border="1"> <tr> <td>98/92</td> <td>←1/7</td> </tr> <tr> <td>5/43</td> <td></td> </tr> <tr> <td>9/2</td> <td></td> </tr> <tr> <td>2/16</td> <td>27/13</td> </tr> <tr> <td>39/168</td> <td>13/3</td> </tr> <tr> <td>1/8</td> <td></td> </tr> </table>	98/92	←1/7	5/43		9/2		2/16	27/13	39/168	13/3	1/8		<table border="1"> <tr> <td>2/14</td> <td></td> </tr> <tr> <td>40/231</td> <td></td> </tr> <tr> <td>4/14</td> <td>207/66</td> </tr> </table>	2/14		40/231		4/14	207/66	<table border="1"> <tr> <td>←40/231</td> <td></td> </tr> <tr> <td></td> <td>207/66</td> </tr> </table>	←40/231			207/66	<table border="1"> <tr> <td>←40/231</td> <td></td> </tr> <tr> <td></td> <td>207/66</td> </tr> </table>	←40/231			207/66
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	207/66																																	
46. Tippecanoe Ave at Orange Show Rd	47. Tippecanoe Ave at Hospitality Ln	48. Tippecanoe Ave at I-10 WB Ramps	49. Tippecanoe Ave at I-10 EB Ramps																															
<table border="1"> <tr> <td>←40/231</td> <td></td> </tr> <tr> <td></td> <td>207/66</td> </tr> </table>	←40/231			207/66	<table border="1"> <tr> <td>←40/231</td> <td></td> </tr> <tr> <td></td> <td>207/66</td> </tr> </table>	←40/231			207/66	<table border="1"> <tr> <td>←40/231</td> <td></td> </tr> <tr> <td></td> <td>207/66</td> </tr> </table>	←40/231			207/66	<table border="1"> <tr> <td>←6/51</td> <td></td> </tr> <tr> <td>167/50</td> <td>40/16</td> </tr> </table>	←6/51		167/50	40/16															
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FIGURE 4.18-11
PROJECT-RELATED
PEAK HOUR TRAFFIC VOLUMES



NOT TO SCALE

LEGEND:

- (X) = Study Intersection
- xx/yy = AM/PM Peak Hour Turning Movement Volumes

 = Intersection Analysis Boundary (by Sheet)



NOT TO SCALE

Inset Map

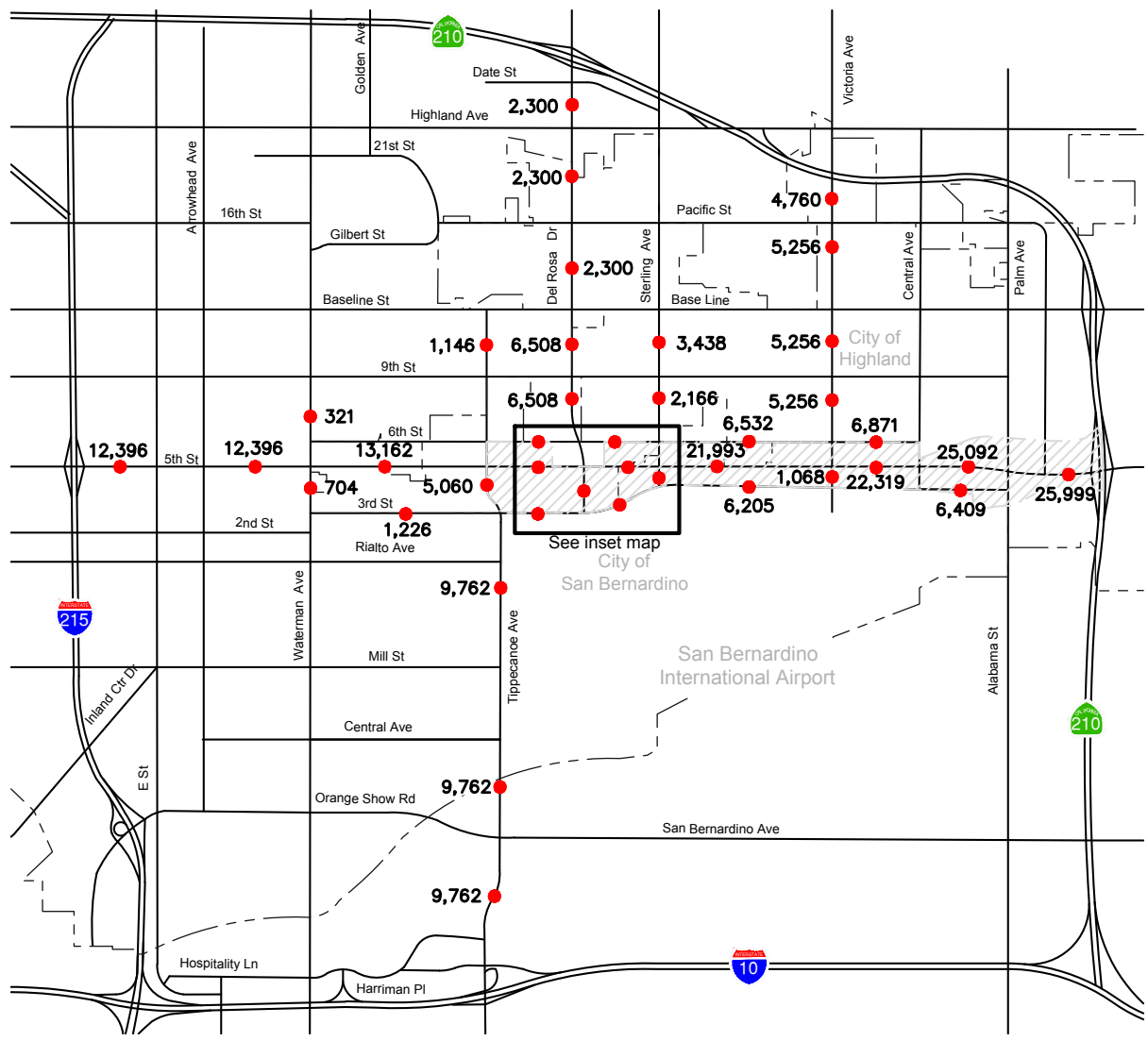
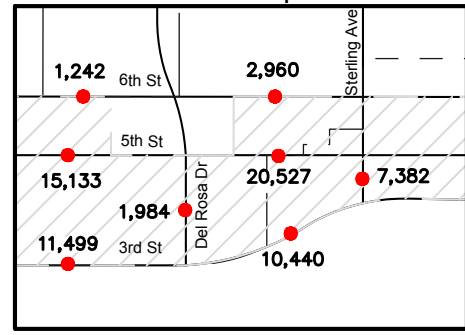
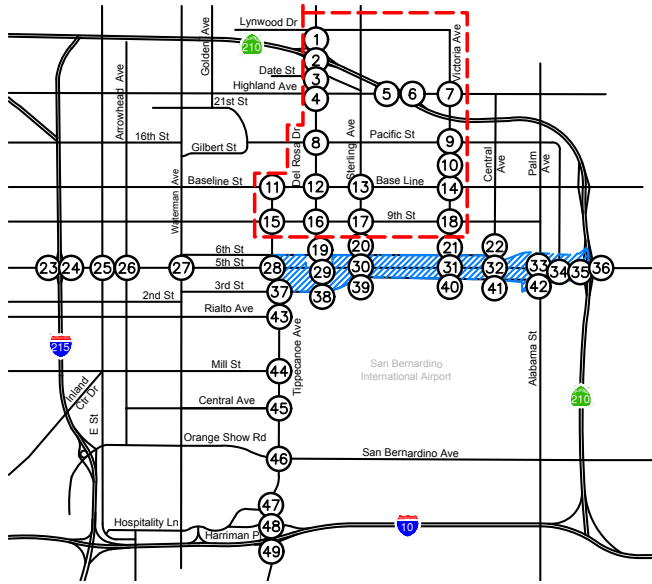


FIGURE 4.18-12
PROJECT-RELATED ROADWAY TRAFFIC VOLUMES

LEGEND:

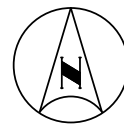
- - - = Specific Plan Boundary
- = Average Daily Traffic Volume
- X,XXX





1. Del Rosa Ave at SR-210 WB Ramps	2. Del Rosa Ave at SR-210 EB Ramps
<p>← 664/373 ← 443/353</p> <p>↖ 121/226 ↗ 125/128</p> <p>↔ 602/695 ↔ 543/713</p>	<p>← 402/361 ↖ 170/121</p> <p>↔ 360/387 ↔ 771/733</p> <p>↗ 832/1017 ↘ 84/120</p>
3. Del Rosa Ave at Date St	4. Del Rosa Ave at Highland Ave
<p>↖ 69/113 ↗ 896/739 ↔ 205/246</p> <p>↖ 157/220 ↗ 28/71 ↘ 15/46</p> <p>↔ 112/126 ↔ 31/57 ↔ 39/51</p> <p>↖ 30/88 ↗ 639/790 ↘ 21/48</p>	<p>↖ 123/113 ↗ 618/418 ↘ 122/165</p> <p>↖ 135/160 ↗ 273/422 ↘ 47/72</p> <p>↔ 51/174 ↔ 267/628 ↔ 119/160</p> <p>↖ 104/174 ↗ 423/564 ↘ 36/65</p>

5. Highland Ave at SR-210 EB Off-Ramp	6. Highland Ave at SR-210 WB Off-Ramp	7. Victoria Ave at Highland Ave	8. Del Rosa Dr at Pacific St	9. Victoria Ave at Pacific St
<p>↖ 160/155 ↗ 957/1044</p> <p>← 334/597</p> <p>↔ 293/702</p>	<p>↖ 6/9 ↗ 1/3</p> <p>↖ 6/8 ↗ 951/1577</p> <p>↔ 2/14 ↔ 946/1372</p> <p>↖ 230/263 ↗ 144/129</p>	<p>↖ 284/591 ↗ 254/162 ↘ 68/183</p> <p>↖ 88/127 ↗ 348/567 ↘ 45/62</p> <p>↔ 448/672 ↔ 372/507 ↔ 148/178</p> <p>↖ 259/326 ↗ 249/242 ↘ 42/57</p>	<p>↖ 200/146 ↗ 392/331 ↘ 38/65</p> <p>↖ 42/35 ↗ 280/191 ↘ 69/29</p> <p>↔ 154/147 ↔ 236/339 ↔ 27/25</p> <p>↖ 44/20 ↗ 225/456 ↘ 28/69</p>	<p>↖ 103/66 ↗ 350/309 ↘ 58/54</p> <p>↖ 89/60 ↗ 331/247 ↘ 50/42</p> <p>↔ 113/71 ↔ 252/358 ↔ 223/195</p> <p>↖ 165/145 ↗ 345/519 ↘ 30/55</p>
10. Victoria Ave at 14th St	11. Tippecanoe Ave at Baseline St	12. Del Rosa Dr at Baseline St	13. Sterling Ave at Base Line	14. Victoria Ave at Base Line
<p>↖ 2/12 ↗ 608/506 ↘ 27/31</p> <p>↖ 52/52 ↗ 3/4 ↘ 19/27</p> <p>↔ 2/13 ↔ 0/10 ↔ 0/3</p> <p>↖ 0/27 ↗ 466/157 ↘ 11/54</p>	<p>← 463/585 ↘ 191/165</p> <p>↔ 376/687 ↔ 217/171</p> <p>↖ 167/283 ↗ 161/249</p>	<p>↖ 125/90 ↗ 329/216 ↘ 31/81</p> <p>↖ 35/50 ↗ 378/471 ↘ 92/26</p> <p>↔ 49/127 ↔ 232/693 ↔ 204/73</p> <p>↖ 67/120 ↗ 219/368 ↘ 77/64</p>	<p>↖ 66/83 ↗ 474/339 ↘ 163/202</p> <p>↖ 195/216 ↗ 338/354 ↘ 44/60</p> <p>↔ 60/127 ↔ 225/551 ↔ 40/49</p> <p>↖ 28/79 ↗ 266/505 ↘ 35/76</p>	<p>↖ 122/122 ↗ 414/311 ↘ 85/99</p> <p>↖ 74/98 ↗ 245/327 ↘ 33/38</p> <p>↔ 105/115 ↔ 211/494 ↔ 30/59</p> <p>↖ 48/62 ↗ 289/479 ↘ 20/74</p>
15. Tippecanoe Ave at 9th St	16. Del Rosa Ave at 9th St	17. Sterling Ave at 9th St	18. Victoria Ave at 9th St	
<p>↖ 23/35 ↗ 368/269 ↘ 24/12</p> <p>↖ 21/22 ↗ 295/246 ↘ 72/48</p> <p>↔ 27/61 ↔ 351/370 ↔ 81/75</p> <p>↖ 111/116 ↗ 251/511 ↘ 76/57</p>	<p>↖ 70/43 ↗ 319/309 ↘ 130/52</p> <p>↖ 44/46 ↗ 233/287 ↘ 31/40</p> <p>↔ 48/38 ↔ 421/219 ↔ 123/65</p> <p>↖ 78/60 ↗ 147/520 ↘ 137/75</p>	<p>↖ 83/75 ↗ 407/255 ↘ 86/80</p> <p>↖ 89/87 ↗ 256/176 ↘ 52/50</p> <p>↔ 80/97 ↔ 172/270 ↔ 22/34</p> <p>↖ 22/33 ↗ 181/414 ↘ 36/106</p>	<p>↖ 65/60 ↗ 334/251 ↘ 44/59</p> <p>↖ 55/56 ↗ 99/120 ↘ 32/19</p> <p>↔ 54/83 ↔ 91/178 ↔ 40/45</p> <p>↖ 45/46 ↗ 185/443 ↘ 16/27</p>	



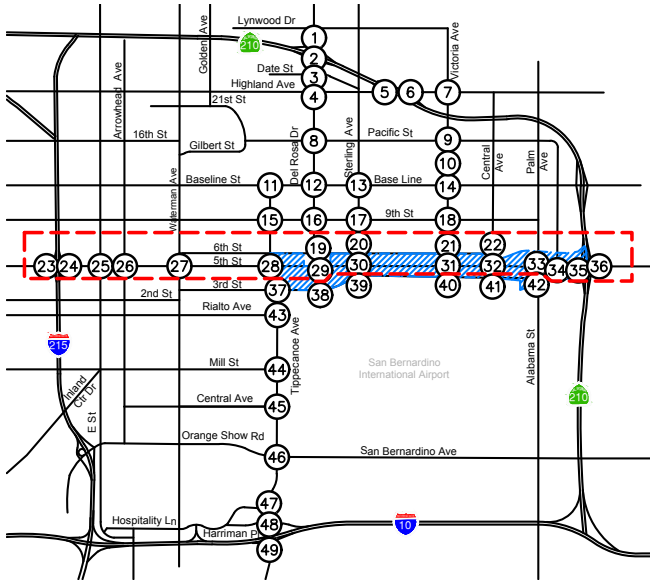
NOT TO SCALE

LEGEND:

- (X) = Study Intersection
- xx/yy = AM/PM Peak Hour Turning Movement Volumes

 = Intersection Analysis Boundary (by Sheet)

FIGURE 4.18-13
EXISTING PLUS PROJECT
PEAK HOUR TRAFFIC VOLUMES



<p>19. Del Rosa Dr at 6th St</p> <p>98/31 ← 366/269 → 49/48 68/22 ← 154/99 → 86/44</p> <p>156/58 → 91/14 ← 220/411 → 155/135 → 41/123 → 57/40</p>	<p>20. Sterling Ave at 6th St</p> <p>48/25 ← 503/254 → 16/26 30/28 ← 134/97 → 54/88</p> <p>38/61 → 30/19 ← 145/498 → 129/139 → 12/11 → 30/43</p>
<p>21. Victoria Ave at 6th St</p> <p>45/28 ← 337/227 → 21/21 38/23 ← 83/68 → 13/5</p> <p>25/36 → 59/52 ← 139/460 → 77/148 → 22/10 → 44/26</p>	<p>22. Central Ave at 6th St</p> <p>87/42 ← 111/75 →</p> <p>50/76 → 35/28 ← 84/213 →</p>

<p>23. I-215 SB Ramps at 5th St</p> <p>193/186 ← 519/869 → 5/6 ← 532/198 → 353/719</p> <p>492/613 → 290/380 → 350/393 → 0/5 → 736/472</p>	<p>24. I-215 NB Ramps at 5th St</p> <p>148/644 ← 562/1210 →</p> <p>150/225 → 290/380 → 890/585 → 0/5 → 736/472</p>	<p>25. E Street at 5th St</p> <p>17/60 ← 132/163 → 7/20 10/21 ← 474/1123 → 7/33</p> <p>75/26 → 102/281 → 1181/621 → 37/42 → 27/94 20/27</p>	<p>26. Arrowhead Ave at 5th St</p> <p>24/51 ← 174/142 → 12/20 26/27 ← 447/873 → 39/39</p> <p>43/46 → 36/95 → 872/568 → 98/305 → 32/64 131/30</p>	<p>27. Waterman Ave at 5th St</p> <p>113/149 ← 519/582 → 16/41 14/52 ← 347/480 → 80/81</p> <p>70/137 → 117/143 → 413/473 → 382/678 → 73/101 153/132</p>
<p>28. Tippecanoe Ave at 5th St</p> <p>41/24 ← 361/302 → 22/44 31/38 ← 237/365 → 33/96</p> <p>39/63 → 46/109 → 251/482 → 181/469 → 78/48 83/58</p>	<p>29. Del Rosa Dr at 5th St</p> <p>62/35 ← 340/225 → 80/100 91/105 ← 422/384 → 29/25</p> <p>67/85 → 8/21 → 201/568 → 289/572 → 16/18 → 15/26</p>	<p>30. Sterling Ave at 5th St</p> <p>103/87 ← 348/229 → 28/40 22/38 ← 418/330 → 48/87</p> <p>35/99 → 29/47 → 293/586 → 25/76 → 112/333 → 25/76 → 86/32</p>	<p>31. Victoria Ave at 5th St</p> <p>43/18 ← 247/157 → 112/166 91/78 ← 528/357 → 257/30</p> <p>34/84 → 3/3 → 256/647 → 83/285 → 13/116 3/11</p>	<p>32. Central Ave at 5th St</p> <p>37/14 ← 56/31 → 70/79 98/164 ← 1003/524 → 33/6</p> <p>19/61 → 5/2 → 352/895 → 19/88 → 4/110 14/5</p>
<p>33. Palm Ave at 5th St</p> <p>83/32 ← 590/262 → 92/142 131/176 ← 950/407 → 459/273</p> <p>11/80 → 43/90 → 351/1102 → 152/565 → 261/535 68/98</p>	<p>34. Church Ave at 5th St</p> <p>84/30 ← 154/79 → 70/77 1504/678</p> <p>25/58 → 663/1753 →</p>	<p>35. SR-210 EB Ramps at 5th St</p> <p>361/194 ← 122/310 → 1232/573 7/6 ← 745/279 →</p> <p>406/1262 → 449/773 →</p>	<p>36. SR-210 WB Ramps at 5th St</p> <p>392/267 ← 1375/591 →</p> <p>156/460 → 605/282 → 377/1092 → 319/435 →</p>	



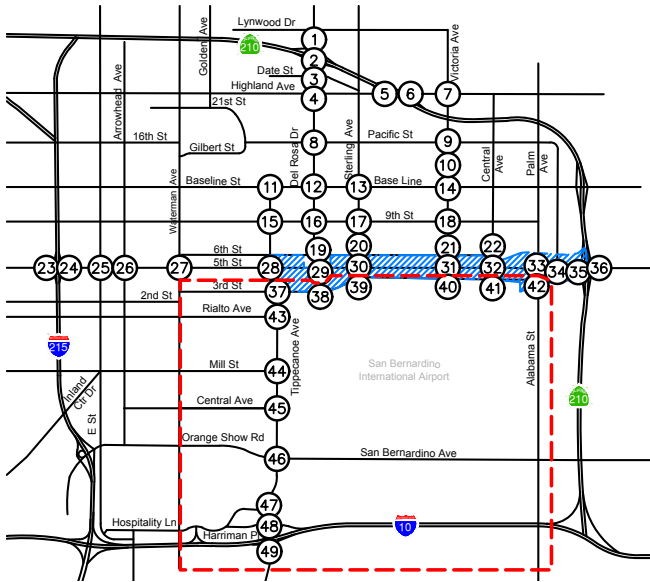
NOT TO SCALE

LEGEND:

- (X) = Study Intersection
- xx/yy = AM/PM Peak Hour Turning Movement Volumes

 = Intersection Analysis Boundary (by Sheet)

FIGURE 4.18-14
EXISTING PLUS PROJECT
PEAK HOUR TRAFFIC VOLUMES



<p>37. Tippecanoe Ave at 3rd St</p> <p>← 32/25 ← 514/374 ← 88/52</p> <p>30/42 212/622 44/59</p> <p>58/60 337/514 315/553</p> <p>35/102 552/245 330/385</p>	<p>38. Del Rosa Dr at 3rd St</p> <p>← 103/86 ← 228/131 ← 35/46</p> <p>88/134 401/1073 28/6</p> <p>13/12 89/207 97/337</p> <p>14/35 875/576 230/61</p>
<p>39. Sterling Ave at 3rd St</p> <p>← 366/230 ← 62/117</p> <p>193/289 302/1217</p> <p>48/101 835/359</p>	<p>40. Victoria Ave at 3rd St</p> <p>← 458/106 ← 30/20 ← 66/67</p> <p>84/330 229/991 24/7</p> <p>12/18 10/32 22/41</p> <p>22/64 414/304 23/32</p>

<p>41. Central Ave at 3rd St</p> <p>← 70/24 ← 22/21</p> <p>20/177 283/914</p> <p>0/1 0/3</p> <p>3/20 408/359</p>	<p>42. Palm Ave at 3rd St</p> <p>← 247/176 ← 805/434 ← 39/14</p> <p>108/435 42/200 1/8</p> <p>197/205 377/772 6/6</p> <p>45/23 6/10 6/9</p>	<p>43. Tippecanoe Ave at Rialto Ave</p> <p>← 83/73 ← 732/878</p> <p>89/125 94/53</p> <p>66/98 688/1041</p>	<p>44. Tippecanoe Ave at Mill St</p> <p>← 4/121 ← 642/1007 ← 167/2</p> <p>30/244 14/8 5/224</p> <p>6/109 929/1071 142/0</p> <p>165/3 38/27 120/25</p>	<p>45. Tippecanoe Ave at Central Ave</p> <p>← 100/143 ← 666/983 ← 238/237</p> <p>82/122 204/192 46/55</p> <p>45/61 769/935 127/69</p> <p>195/258 95/174 26/59</p>
<p>46. Tippecanoe Ave at Orange Show Rd</p> <p>← 64/47 ← 630/858 ← 109/224</p> <p>122/183 157/664 128/145</p> <p>75/129 719/730 48/105</p> <p>116/183 256/516 88/174</p>	<p>47. Tippecanoe Ave at Hospitality Ln</p> <p>← 43/114 ← 610/1047 ← 51/45</p> <p>56/213 19/88 62/306</p> <p>382/425 1015/582 40/78</p> <p>39/23 53/65 79/82</p>	<p>48. Tippecanoe Ave at I-10 WB Ramps</p> <p>← 60/180 ← 754/1405</p> <p>38/157 179/670</p> <p>125/300 1024/665</p> <p>369/267 137/215 528/180</p>	<p>49. Tippecanoe Ave at I-10 EB Ramps</p> <p>← 836/715 ← 161/674</p> <p>858/475 4/2 611/302</p> <p>661/968 298/343</p>	

**FIGURE 4.18-15
EXISTING PLUS PROJECT
PEAK HOUR TRAFFIC VOLUMES**



NOT TO SCALE

LEGEND:

- (X) = Study Intersection
- xx/yy = AM/PM Peak Hour Turning Movement Volumes

 = Intersection Analysis Boundary (by Sheet)



NOT TO SCALE

Inset Map

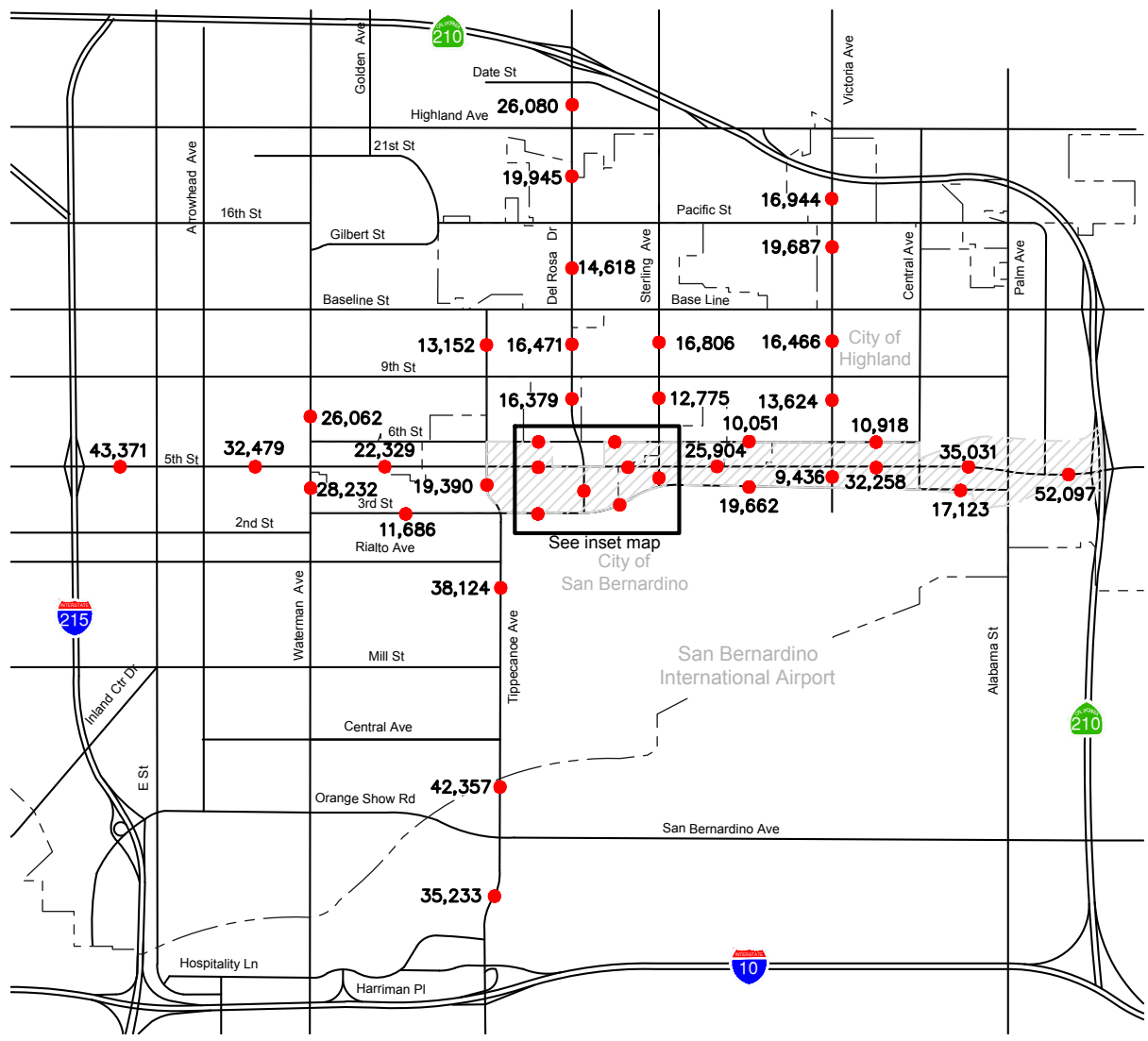
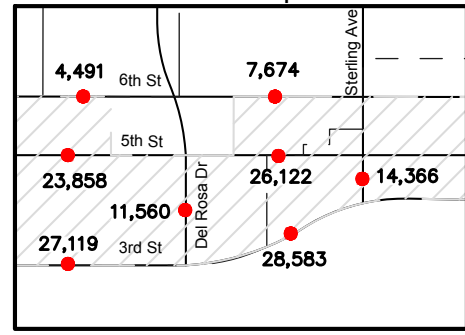
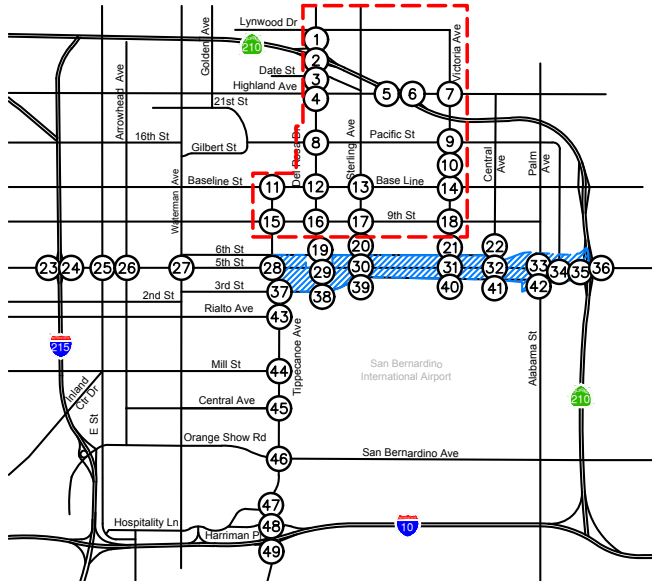


FIGURE 4.18-16
EXISTING PLUS PROJECT ROADWAY TRAFFIC VOLUMES

LEGEND:

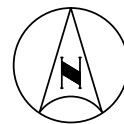
- = Specific Plan Boundary
- = Average Daily Traffic Volume





<p>1. Del Rosa Ave at SR-210 WB Ramps</p> <p>← 714/373 ← 548/399</p> <p>↗ 144/305 ↘ 157/186</p> <p>↖ 587/640 ↗ 543/802</p>	<p>2. Del Rosa Ave at SR-210 EB Ramps</p> <p>↖ 477/425 ↘ 232/161</p> <p>↖ 360/406 ↘ 1/1 ↖ 713/751</p> <p>↖ 817/1032 ↘ 112/148</p>
<p>3. Del Rosa Ave at Date St</p> <p>↖ 80/130 ↘ 925/805 ↖ 181/244</p> <p>↖ 153/209 ↘ 28/71 ↖ 15/46</p> <p>↖ 128/142 ↘ 31/57 ↖ 43/54</p> <p>↖ 31/83 ↘ 639/826 ↖ 21/48</p>	<p>4. Del Rosa Ave at Highland Ave</p> <p>↖ 128/122 ↘ 632/438 ↖ 122/174</p> <p>↖ 135/183 ↘ 280/518 ↖ 51/88</p> <p>↖ 51/174 ↘ 297/649 ↖ 157/169</p> <p>↖ 139/205 ↘ 449/563 ↖ 43/75</p>

<p>5. Highland Ave at SR-210 EB Off-Ramp</p> <p>↖ 175/190 ↘ 943/1032</p> <p>← 391/730</p> <p>357/766 →</p>	<p>6. Highland Ave at SR-210 WB Off-Ramp</p> <p>↖ 6/9 ↘ 1/3</p> <p>↖ 6/8 ↘ 939/1710</p> <p>↖ 2/14 ↘ 1034/1413</p> <p>↖ 347/364 ↘ 1/1 ↖ 144/175</p>	<p>7. Victoria Ave at Highland Ave</p> <p>↖ 286/746 ↘ 482/490 ↖ 162/395</p> <p>↖ 224/298 ↘ 348/567 ↖ 86/153</p> <p>↖ 566/806 ↘ 376/507 ↖ 139/215</p> <p>↖ 241/307 ↘ 652/596 ↖ 90/120</p>	<p>8. Del Rosa Dr at Pacific St</p> <p>↖ 200/146 ↘ 432/366 ↖ 44/66</p> <p>↖ 44/40 ↘ 291/228 ↖ 94/41</p> <p>↖ 154/147 ↘ 262/369 ↖ 33/31</p> <p>↖ 48/27 ↘ 236/521 ↖ 37/99</p>	<p>9. Victoria Ave at Pacific St</p> <p>↖ 190/191 ↘ 462/482 ↖ 123/152</p> <p>↖ 159/134 ↘ 344/284 ↖ 51/43</p> <p>↖ 194/170 ↘ 288/429 ↖ 207/191</p> <p>↖ 165/146 ↘ 460/570 ↖ 30/56</p>
<p>10. Victoria Ave at 14th St</p> <p>↖ 4/12 ↘ 689/621 ↖ 27/31</p> <p>↖ 54/55 ↘ 6/4 ↖ 25/27</p> <p>↖ 8/29 ↘ 0/10 ↖ 3/4</p> <p>↖ 1/41 ↘ 542/139 ↖ 11/82</p>	<p>11. Tippecanoe Ave at Baseline St</p> <p>← 488/499 ↘ 191/165</p> <p>↖ 351/651 ↘ 227/167</p> <p>↖ 193/283 ↘ 161/249</p>	<p>12. Del Rosa Dr at Baseline St</p> <p>↖ 146/128 ↘ 406/253 ↖ 39/85</p> <p>↖ 39/56 ↘ 378/472 ↖ 106/26</p> <p>↖ 55/187 ↘ 232/693 ↖ 155/43</p> <p>↖ 50/57 ↘ 233/445 ↖ 77/64</p>	<p>13. Sterling Ave at Base Line</p> <p>↖ 84/100 ↘ 479/317 ↖ 163/202</p> <p>↖ 195/216 ↘ 338/354 ↖ 44/60</p> <p>↖ 71/147 ↘ 225/551 ↖ 48/51</p> <p>↖ 30/85 ↘ 256/529 ↖ 35/76</p>	<p>14. Victoria Ave at Base Line</p> <p>↖ 125/123 ↘ 451/360 ↖ 134/150</p> <p>↖ 121/145 ↘ 245/327 ↖ 41/45</p> <p>↖ 105/116 ↘ 211/494 ↖ 30/59</p> <p>↖ 48/62 ↘ 328/454 ↖ 22/92</p>
<p>15. Tippecanoe Ave at 9th St</p> <p>↖ 23/48 ↘ 378/265 ↖ 24/12</p> <p>↖ 22/24 ↘ 327/350 ↖ 110/49</p> <p>↖ 42/89 ↘ 430/431 ↖ 184/103</p> <p>↖ 122/183 ↘ 257/613 ↖ 76/57</p>	<p>16. Del Rosa Ave at 9th St</p> <p>↖ 108/64 ↘ 290/287 ↖ 163/57</p> <p>↖ 45/49 ↘ 264/359 ↖ 33/40</p> <p>↖ 57/53 ↘ 453/261 ↖ 153/77</p> <p>↖ 95/123 ↘ 131/513 ↖ 137/84</p>	<p>17. Sterling Ave at 9th St</p> <p>↖ 83/75 ↘ 452/248 ↖ 55/71</p> <p>↖ 85/73 ↘ 287/207 ↖ 122/92</p> <p>↖ 80/97 ↘ 193/305 ↖ 63/77</p> <p>↖ 44/78 ↘ 207/461 ↖ 59/195</p>	<p>18. Victoria Ave at 9th St</p> <p>↖ 84/66 ↘ 362/238 ↖ 44/59</p> <p>↖ 55/57 ↘ 141/161 ↖ 47/24</p> <p>↖ 59/100 ↘ 115/236 ↖ 71/70</p> <p>↖ 61/82 ↘ 169/420 ↖ 17/39</p>	



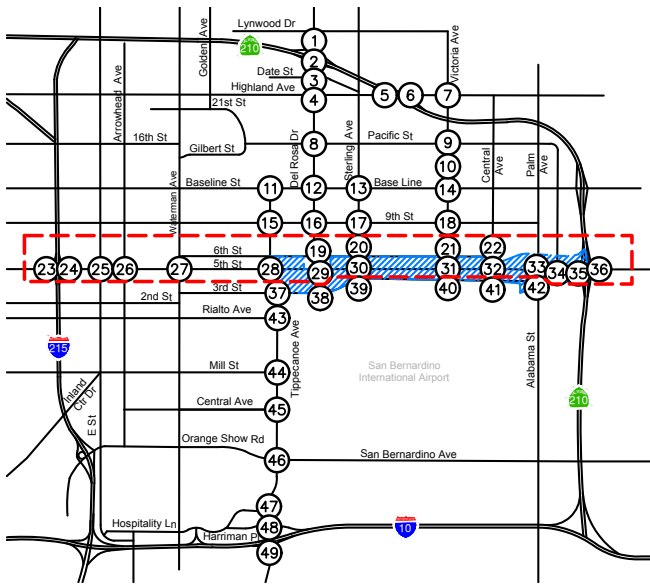
NOT TO SCALE

LEGEND:

- (X) = Study Intersection
- xx/yy = AM/PM Peak Hour Turning Movement Volumes
- = Intersection Analysis Boundary (by Sheet)

FIGURE 4.18-17
FUTURE BUILD-OUT 2040
PEAK HOUR TRAFFIC VOLUMES

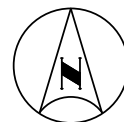




<p>19. Del Rosa Dr at 6th St</p> <p>95/30 404/261 54/19</p> <p>44/36 144/86 97/40</p> <p>155/55 144/124 56/14</p> <p>71/10 232/523 40/132</p>	<p>20. Sterling Ave at 6th St</p> <p>43/29 677/372 28/28</p> <p>15/18 116/76 9/10</p> <p>44/55 102/104 14/11</p> <p>15/19 259/725 13/41</p>
<p>21. Victoria Ave at 6th St</p> <p>23/24 456/240 39/62</p> <p>38/32 46/52 62/30</p> <p>23/26 57/65 41/25</p> <p>31/46 129/506 7/74</p>	<p>22. Central Ave at 6th St</p> <p>38/31 111/81</p> <p>45/56</p> <p>27/28</p> <p>10/22 82/185</p>

<p>23. I-215 SB Ramps at 5th St</p> <p>241/186 7/6 532/311</p> <p>704/816 458/498</p> <p>442/858 350/393</p>	<p>24. I-215 NB Ramps at 5th St</p> <p>148/644 829/936</p> <p>150/225 840/951</p> <p>312/380 0/5 542/480</p>	<p>25. E Street at 5th St</p> <p>17/60 143/163 11/28</p> <p>12/24 425/904 14/44</p> <p>75/26 994/611 40/42</p> <p>27/94 109/309 26/45</p>	<p>26. Arrowhead Ave at 5th St</p> <p>38/51 227/146 40/28</p> <p>12/30 437/752 39/52</p> <p>46/60 806/575 144/35</p> <p>46/107 98/411 38/77</p>	<p>27. Waterman Ave at 5th St</p> <p>110/132 656/597 18/59</p> <p>16/34 314/302 152/94</p> <p>70/137 283/514 248/159</p> <p>128/254 413/898 104/207</p>
<p>28. Tippecanoe Ave at 5th St</p> <p>41/24 494/320 41/60</p> <p>40/58 348/268 50/62</p> <p>32/59 218/734 72/54</p> <p>36/72 176/582 23/77</p>	<p>29. Del Rosa Dr at 5th St</p> <p>380/268 316/215 32/48</p> <p>47/36 288/130 27/16</p> <p>224/526 74/398 16/21</p> <p>14/39 192/343 7/24</p>	<p>30. Sterling Ave at 5th St</p> <p>55/42 526/226 80/170</p> <p>102/166 269/124 237/106</p> <p>22/83 90/367 29/35</p> <p>12/17 151/523 17/162</p>	<p>31. Victoria Ave at 5th St</p> <p>77/39 454/230 76/75</p> <p>78/109 413/238 297/35</p> <p>21/101 109/482 61/139</p> <p>20/46 139/523 20/157</p>	<p>32. Central Ave at 5th St</p> <p>33/16 56/33 44/51</p> <p>45/75 798/345 40/7</p> <p>15/24 238/731 17/7</p> <p>6/2 19/88 5/124</p>
<p>33. Palm Ave at 5th St</p> <p>98/40 685/288 145/201</p> <p>107/146 671/267 393/204</p> <p>14/95 224/794 71/69</p> <p>36/99 162/655 267/564</p>	<p>34. Church Ave at 5th St</p> <p>87/31 324/327</p> <p>169/259 1241/562</p> <p>57/65 568/1714</p>	<p>35. SR-210 EB Ramps at 5th St</p> <p>265/183 11/9 211/559</p> <p>1418/643 958/389</p> <p>427/1406 468/674</p>	<p>36. SR-210 WB Ramps at 5th St</p> <p>393/398 1817/803</p> <p>103/314 539/1633</p> <p>563/251 401/610</p>	

**FIGURE 4.18-18
FUTURE BUILD-OUT 2040
PEAK HOUR TRAFFIC VOLUMES**

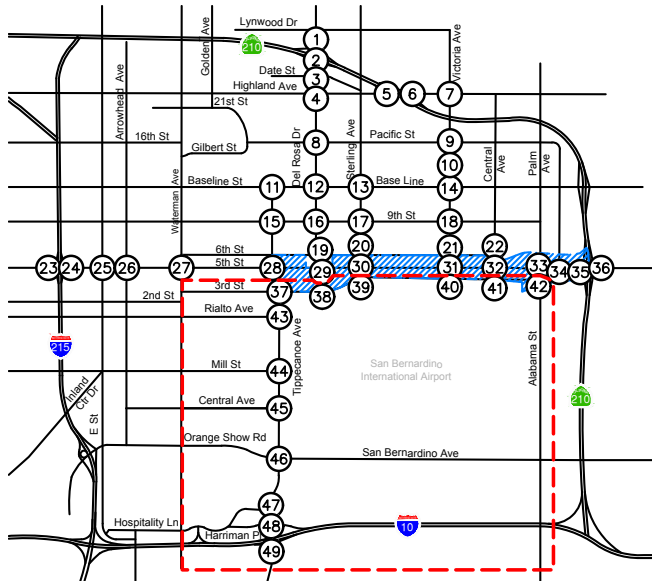


NOT TO SCALE

LEGEND:

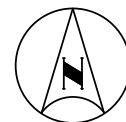
- (X) = Study Intersection
- xx/yy = AM/PM Peak Hour Turning Movement Volumes

 = Intersection Analysis Boundary (by Sheet)



37. Tippecanoe Ave at 3rd St 	38. Del Rosa Dr at 3rd St
39. Sterling Ave at 3rd St 	40. Victoria Ave at 3rd St

41. Central Ave at 3rd St 	42. Palm Ave at 3rd St 	43. Tippecanoe Ave at Rialto Ave 	44. Tippecanoe Ave at Mill St 	45. Tippecanoe Ave at Central Ave
46. Tippecanoe Ave at Orange Show Rd 	47. Tippecanoe Ave at Hospitality Ln 	48. Tippecanoe Ave at I-10 WB Ramps 	49. Tippecanoe Ave at I-10 EB Ramps 	



NOT TO SCALE

LEGEND:

- (X) = Study Intersection
- xx/yy = AM/PM Peak Hour Turning Movement Volumes
- [Red Dashed Box] = Intersection Analysis Boundary (by Sheet)

**FIGURE 4.18-19
FUTURE BUILD-OUT 2040
PEAK HOUR TRAFFIC VOLUMES**



NOT TO SCALE

Inset Map

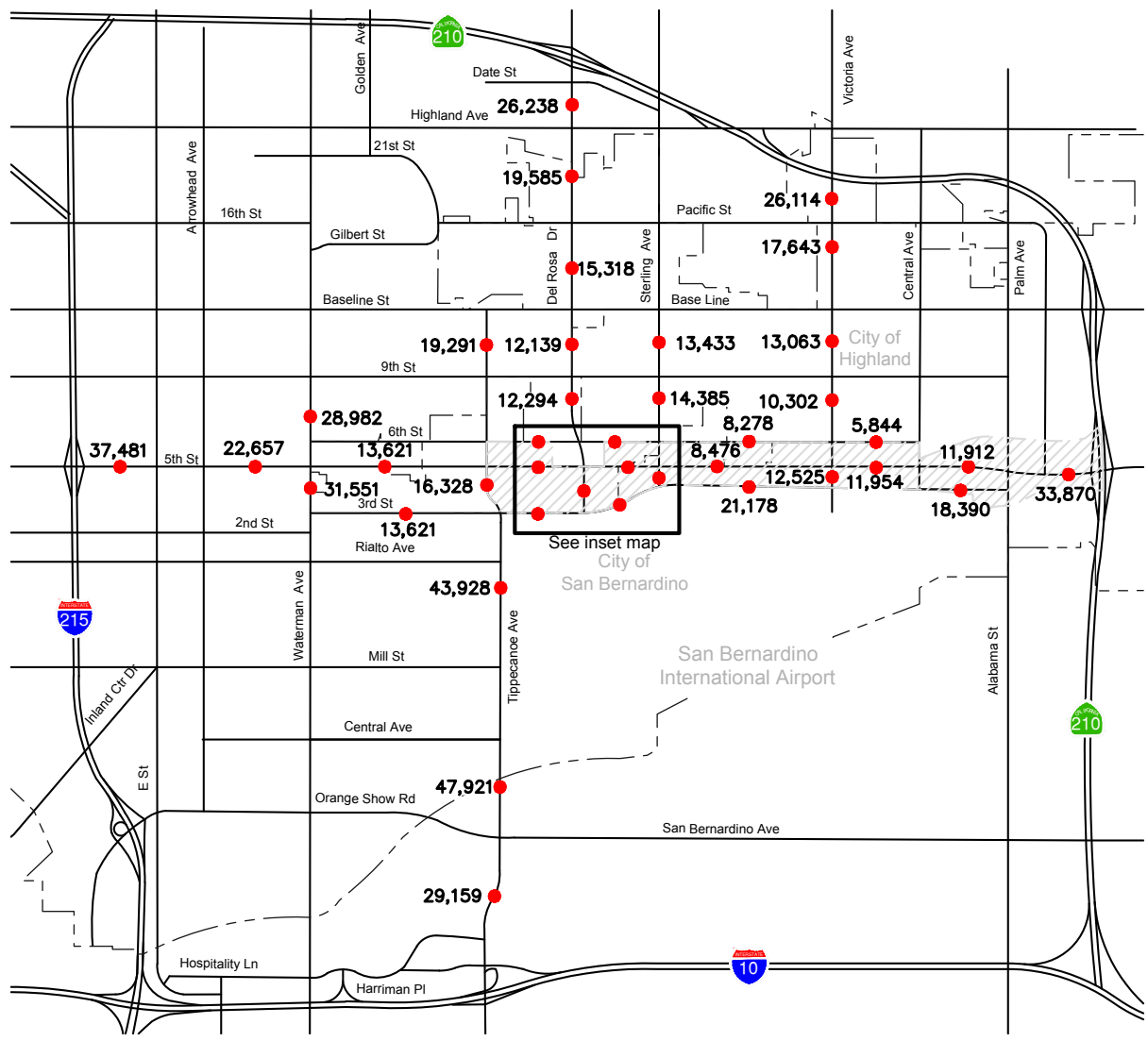
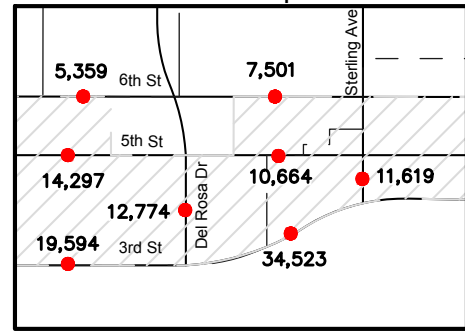
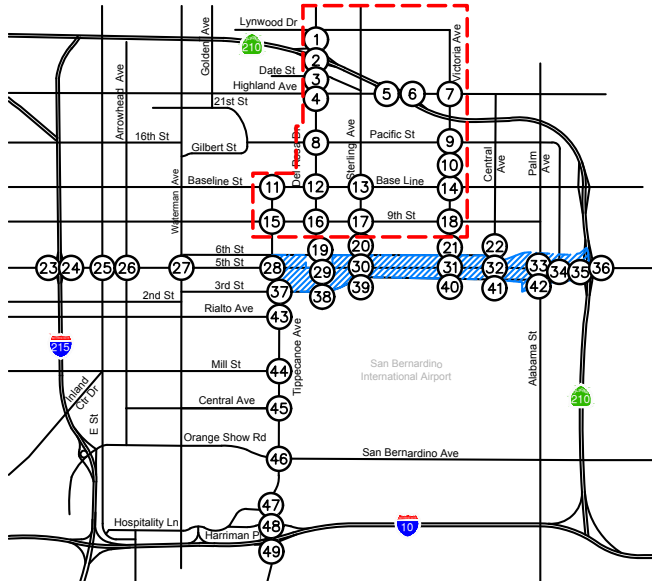


FIGURE 4.18-20 FUTURE BUILD-OUT 2040 ROADWAY TRAFFIC VOLUMES

LEGEND:

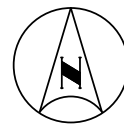
- = Specific Plan Boundary
- X,XXX = Average Daily Traffic Volume





1. Del Rosa Ave at SR-210 WB Ramps	2. Del Rosa Ave at SR-210 EB Ramps												
<table border="1"> <tr> <td>774/373 548/399</td> <td>144/305</td> </tr> <tr> <td></td> <td>157/186</td> </tr> <tr> <td>602/708 543/802</td> <td></td> </tr> </table>	774/373 548/399	144/305		157/186	602/708 543/802		<table border="1"> <tr> <td>477/425 232/161</td> <td></td> </tr> <tr> <td>360/406 1/1</td> <td>832/1100 112/148</td> </tr> <tr> <td>789/769</td> <td></td> </tr> </table>	477/425 232/161		360/406 1/1	832/1100 112/148	789/769	
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	157/186												
602/708 543/802													
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360/406 1/1	832/1100 112/148												
789/769													
3. Del Rosa Ave at Date St	4. Del Rosa Ave at Highland Ave												
<table border="1"> <tr> <td>80/130 975/817</td> <td>157/223 28/71</td> </tr> <tr> <td></td> <td>15/46</td> </tr> <tr> <td>128/142 31/57 43/54</td> <td>31/83 650/880 21/48</td> </tr> </table>	80/130 975/817	157/223 28/71		15/46	128/142 31/57 43/54	31/83 650/880 21/48	<table border="1"> <tr> <td>128/122 682/450</td> <td>122/174</td> </tr> <tr> <td></td> <td>135/183 280/518 51/88</td> </tr> <tr> <td>51/174 297/649 157/169</td> <td>139/205 460/617 43/75</td> </tr> </table>	128/122 682/450	122/174		135/183 280/518 51/88	51/174 297/649 157/169	139/205 460/617 43/75
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128/122 682/450	122/174												
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5. Highland Ave at SR-210 EB Off-Ramp	6. Highland Ave at SR-210 WB Off-Ramp	7. Victoria Ave at Highland Ave	8. Del Rosa Dr at Pacific St	9. Victoria Ave at Pacific St																								
<table border="1"> <tr> <td>175/190 989/1051</td> <td>396/750</td> </tr> <tr> <td>357/766</td> <td></td> </tr> </table>	175/190 989/1051	396/750	357/766		<table border="1"> <tr> <td>6/9 1/3</td> <td>6/8 957/1799</td> </tr> <tr> <td>2/14 1063/1427</td> <td>1/1 347/364 144/175</td> </tr> </table>	6/9 1/3	6/8 957/1799	2/14 1063/1427	1/1 347/364 144/175	<table border="1"> <tr> <td>286/746 521/506 162/395</td> <td>224/298 348/567 86/153</td> </tr> <tr> <td>566/806 376/507 168/229</td> <td>259/396 658/647 90/120</td> </tr> </table>	286/746 521/506 162/395	224/298 348/567 86/153	566/806 376/507 168/229	259/396 658/647 90/120	<table border="1"> <tr> <td>200/146 482/378</td> <td>44/66 44/40</td> </tr> <tr> <td>154/147 262/369 33/31</td> <td>291/228 94/41</td> </tr> <tr> <td>48/27 247/575 37/99</td> <td></td> </tr> </table>	200/146 482/378	44/66 44/40	154/147 262/369 33/31	291/228 94/41	48/27 247/575 37/99		<table border="1"> <tr> <td>190/191 530/512</td> <td>123/152</td> </tr> <tr> <td>194/170 288/429 224/196</td> <td>159/134 344/284 51/43</td> </tr> <tr> <td>165/146 484/710 30/56</td> <td></td> </tr> </table>	190/191 530/512	123/152	194/170 288/429 224/196	159/134 344/284 51/43	165/146 484/710 30/56	
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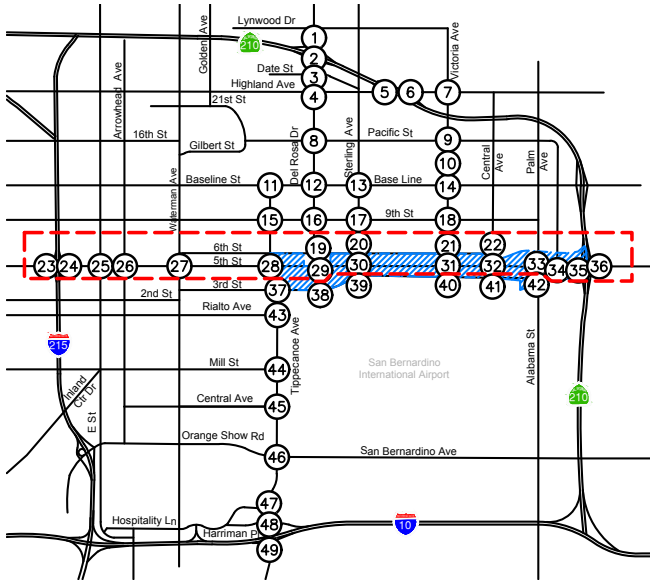
NOT TO SCALE

LEGEND:

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 = Intersection Analysis Boundary (by Sheet)

FIGURE 4.18-21
FUTURE BUILD-OUT 2040 PLUS PROJECT
PEAK HOUR TRAFFIC VOLUMES



<p>19. Del Rosa Dr at 6th St</p> <p>98/31 496/300 79/27</p> <p>50/65 154/99 97/45</p> <p>156/58 155/135 60/40</p> <p>91/14 253/621 44/133</p>	<p>20. Sterling Ave at 6th St</p> <p>48/31 711/389 34/30</p> <p>17/26 134/97 54/88</p> <p>45/61 129/139 14/11</p> <p>33/23 266/765 34/46</p>
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<p>23. I-215 SB Ramps at 5th St</p> <p>241/186 7/6 532/311</p> <p>719/880 496/719</p> <p>492/882 350/393</p>	<p>24. I-215 NB Ramps at 5th St</p> <p>148/644 882/1221</p> <p>150/225 890/975</p> <p>312/380 0/5 736/534</p>	<p>25. E Street at 5th St</p> <p>17/60 143/163 11/28</p> <p>12/24 478/1189 14/44</p> <p>75/26 1238/689 40/42</p> <p>27/94 109/309 26/45</p>	<p>26. Arrowhead Ave at 5th St</p> <p>38/51 227/146 40/28</p> <p>12/30 490/1037 39/52</p> <p>46/60 1050/653 144/35</p> <p>46/107 98/411 38/77</p>	<p>27. Waterman Ave at 5th St</p> <p>113/149 656/605 18/59</p> <p>16/42 364/570 156/113</p> <p>70/137 527/592 248/159</p> <p>128/254 413/898 129/211</p>
<p>28. Tippecanoe Ave at 5th St</p> <p>41/24 495/325 55/63</p> <p>43/74 392/511 63/132</p> <p>54/63 414/802 123/64</p> <p>46/124 181/583 90/91</p>	<p>29. Del Rosa Dr at 5th St</p> <p>393/271 340/225 91/105</p> <p>80/100 426/395 29/25</p> <p>227/540 294/572 16/21</p> <p>14/39 201/368 15/26</p>	<p>30. Sterling Ave at 5th St</p> <p>103/87 544/273 93/173</p> <p>120/176 418/330 261/182</p> <p>35/99 310/587 43/82</p> <p>33/58 166/546 101/180</p>	<p>31. Victoria Ave at 5th St</p> <p>90/43 471/250 91/78</p> <p>112/166 675/457 297/35</p> <p>46/137 305/767 61/139</p> <p>22/47 148/560 20/157</p>	<p>32. Central Ave at 5th St</p> <p>37/16 56/33 100/165</p> <p>71/81 1118/570 40/7</p> <p>19/64 399/1010 17/7</p> <p>6/2 19/88 5/24</p>
<p>33. Palm Ave at 5th St</p> <p>108/42 891/304 151/203</p> <p>107/156 1053/424 494/287</p> <p>14/105 372/1196 76/107</p> <p>46/101 164/671 270/565</p>	<p>34. Church Ave at 5th St</p> <p>87/31 324/327</p> <p>169/259 1762/729</p> <p>57/65 667/2150</p>	<p>35. SR-210 EB Ramps at 5th St</p> <p>505/259 11/9 211/559</p> <p>1699/734 958/389</p> <p>507/1735 521/958</p>	<p>36. SR-210 WB Ramps at 5th St</p> <p>393/398 1856/819</p> <p>177/592 545/1684</p> <p>805/326 401/610</p>	



NOT TO SCALE

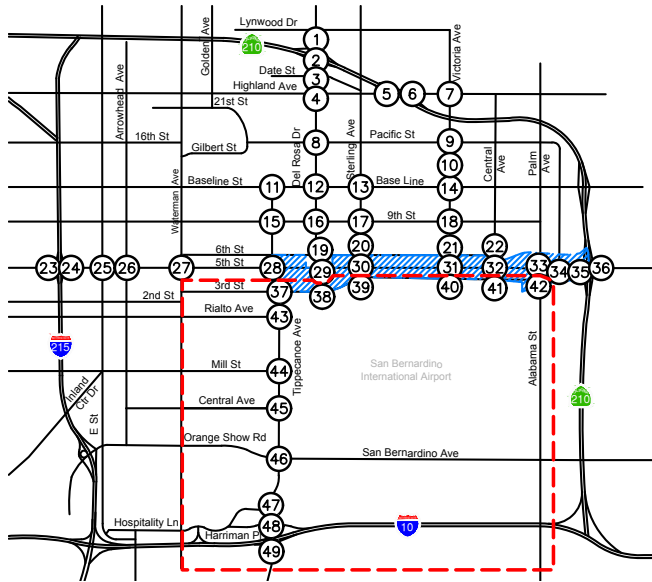
LEGEND:

- (X) = Study Intersection
- xx/yy = AM/PM Peak Hour Turning Movement Volumes

 = Intersection Analysis Boundary (by Sheet)

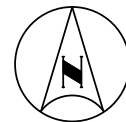
FIGURE 4.18-22

**FUTURE BUILD-OUT 2040 PLUS PROJECT
PEAK HOUR TRAFFIC VOLUMES**



37. Tippecanoe Ave at 3rd St 	38. Del Rosa Dr at 3rd St
39. Sterling Ave at 3rd St 	40. Victoria Ave at 3rd St

41. Central Ave at 3rd St 	42. Palm Ave at 3rd St 	43. Tippecanoe Ave at Rialto Ave 	44. Tippecanoe Ave at Mill St 	45. Tippecanoe Ave at Central Ave
46. Tippecanoe Ave at Orange Show Rd 	47. Tippecanoe Ave at Hospitality Ln 	48. Tippecanoe Ave at I-10 WB Ramps 	49. Tippecanoe Ave at I-10 EB Ramps 	

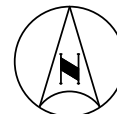


NOT TO SCALE

LEGEND:

- (X) = Study Intersection
- xx/yy = AM/PM Peak Hour Turning Movement Volumes
- = Intersection Analysis Boundary (by Sheet)

**FIGURE 4.18-23
FUTURE BUILD-OUT 2040 PLUS PROJECT
PEAK HOUR TRAFFIC VOLUMES**



NOT TO SCALE

Inset Map

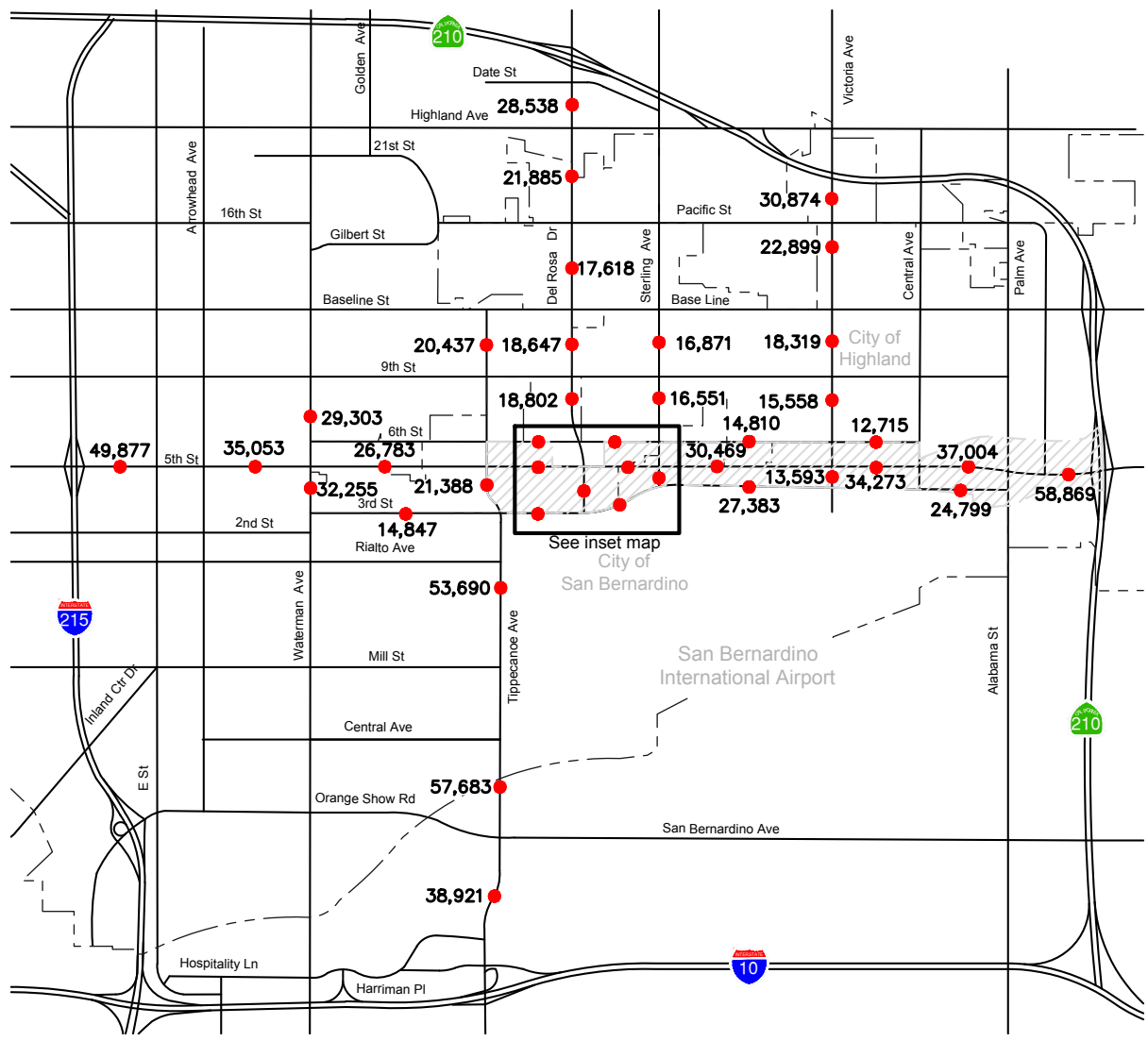
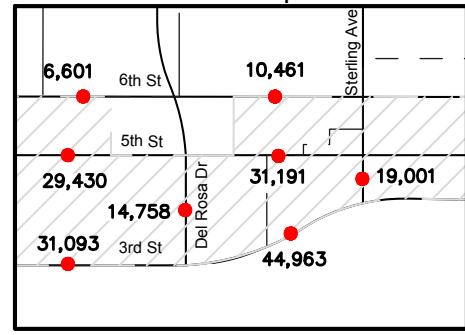
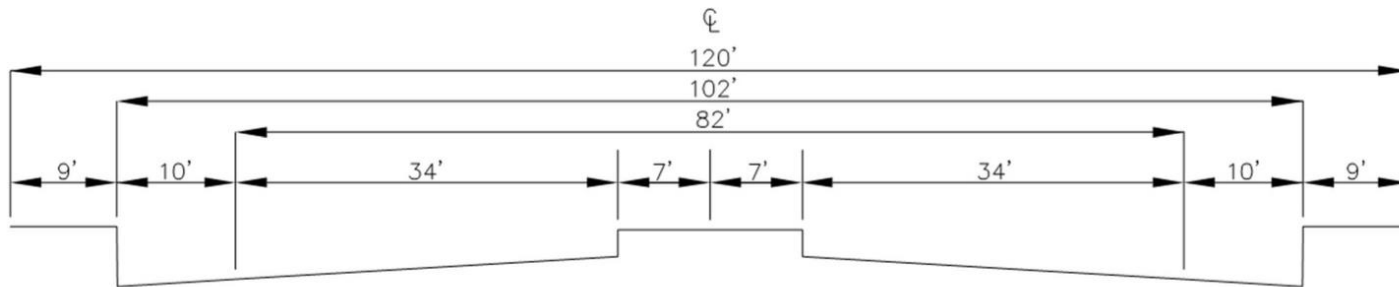


FIGURE 4.18-24
FUTURE BUILD-OUT 2040 PLUS PROJECT
ROADWAY TRAFFIC VOLUMES

LEGEND:
--- = Specific Plan Boundary
● X,XXX = Average Daily Traffic Volume



"Truck Boulevard" Cross Section



SOURCE: Kimley-Horn & Associates, Draft Traffic Impact Analysis, July 2019

FIGURE 4.18-25

4.19 TRIBAL CULTURAL RESOURCES

4.19.1 Introduction

This subchapter evaluates the potential environmental impacts to tribal cultural resources from implementation of the proposed project. In response to the AB 52 consultation initiated in June 2022, the four tribes that were notified (Gabrieleño, Morongo, Serrano Nation, and San Manuel) and to date none of the tribes have requested consultation. A copy of the letters transmitted to the tribes is provided in Appendix 12. As indicated, the IVDA Staff initiated consultation and based on the lack of a response from the tribes, no further consultation was conducted. Based on this finding, the following section has been truncated to reflect the lack of any potential identified tribal cultural resource impacts.

4.19.2 Regulatory Setting

Federal, State, and local laws, regulations, plans, or guidelines that are applicable to the proposed project are summarized below.

4.19.2.1 Federal Regulations

4.8.2.1.1 Archaeological Resources Protection Act

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

4.8.2.1.2 Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) is a federal law passed in 1990 that provides a process for 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, and culturally affiliated Indian tribes.

4.19.2.2 State

4.8.2.2.1 Public Resources Code

Archaeological resources are protected pursuant to a wide variety of state policies and regulations enumerated under the California Public Resources Code. In addition, cultural resources are recognized as a non-renewable resource and therefore receive protection under the California Public Resources Code and CEQA.

- California Public Resources Code 5097.9–5097.991 provides protection to Native American historical and cultural resources, and sacred sites and identifies the powers and duties of the Native American Heritage Commission (NAHC). It also requires notification to descendants of discoveries of Native American human remains and provides for treatment and disposition of human remains and associated grave goods.
- California Public Resources Code 5097.9 states that no public agency or private party on public property shall “interfere with the free expression or exercise of Native American Religion.” The code further states that:

No such agency or party [shall] cause severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred

shrine...except on a clear and convincing showing that the public interest and necessity so require. County and city lands are exempt from this provision, except for parklands larger than 100 acres.

4.8.2.2.2 Health and Safety Code

The discovery of human remains is regulated per California Health and Safety Code Section 7050.5, which 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...until the coroner...has determined...that the remains are not subject to... provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible.... The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains. If the coroner determines that the remains are not subject to his or her authority and...has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

4.8.2.2.3 Senate Bill 18

Prior to the enactment of Senate Bill 18 (SB 18; California Government Code Sections 65352.3 et seq.) related to traditional tribal cultural places (TTCP) in 2004, state law provided limited protection for Native American prehistoric, archaeological, cultural, spiritual, and ceremonial places. These places may include sanctified cemeteries, religious, ceremonial sites, shrines, burial grounds, prehistoric ruins, archaeological or historic sites, Native American rock art inscriptions, or features of Native American historic, cultural, and sacred sites.

SB 18 placed new requirements upon local governments for developments within or near TTCP. 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. The Final Tribal Guidelines recommends that the NAHC provide written information as soon as possible but no later than 30 days to inform the lead agency if the proposed project is determined to be in proximity to a TTCP and another 90 days for tribes to respond to if they want to consult with the local government to determine whether the project would have an adverse impact on the TTCP. There is no statutory limit on the consultation duration. Forty-five days before the action is publicly considered by the local government council, the local government refers action to agencies, following the CEQA public review time frame. The CEQA public distribution list may include tribes listed by the NAHC who have requested consultation or it may not. If the NAHC, the tribe, and interested parties agree upon the mitigation measures necessary for the proposed project, it would be included in the project's EIR. If both the lead agency and the tribe agree that adequate mitigation or preservation measures cannot be taken, then neither party is obligated to take action.

SB 18 requires a city or county to consult with the NAHC and any appropriate Native American tribe prior to the adoption, revision, amendment, or update of a city's or county's general plan. While SB 18 does not specifically mention consultation or notice requirements for adoption of a water basin management program such as the OBMPU. In addition, SB 18 provides a new definition of TTCP that requires a traditional association of the site with Native American traditional

beliefs, cultural practices, or ceremonies or the site must be shown to actually have been used for activities related to traditional beliefs, cultural practices, or ceremonies. Previously, the site was defined to require only an association with traditional beliefs, practices, lifeways, and ceremonial activities. In addition, SB 18 law amended Civil Code § 815.3 and added California Native American tribes to the list of entities that can acquire and hold conservation easements for the purpose of protecting their cultural places.

4.8.2.2.4 Assembly Bill 52

The Native American Historic Resource Protection Act (AB 52) took effect July 1, 2015, and incorporates tribal consultation and analysis of impacts to tribal cultural resources (TCR) into the CEQA process. It requires TCRs to be analyzed like any other CEQA topic and establishes a consultation process for lead agencies and California tribes. Projects that require a Notice of Preparation of an EIR or Notice of Intent to adopt a ND or MND on or after July 1st are subject to AB 52. A significant impact on a TCR is considered a significant environmental impact, requiring feasible mitigation measures.

TCRs must have certain characteristics:

- 1) Sites, features, places, cultural landscapes (must be geographically defined), sacred places, and objects with cultural value to a California Native American tribe that are either included or determined to be eligible for inclusion in the California Register of Historic Resources or included in a local register of historical resources. (PRC § 21074(a)(1))
- 2) The lead agency, supported by substantial evidence, chooses to treat the resource as a TCR. (PRC § 21074(a)(2))

The first category requires that the TCR qualify as a historical resource according to PRC Section 5024.1. The second category gives the lead agency discretion to qualify that resource—under the conditions that it support its determination with substantial evidence and consider the resource’s significance to a California tribe. The following is a brief outline of the process (PRC §§ 21080.3.1–3.3).

- 1) A California Native American tribe asks agencies in the geographic area with which it is traditionally and culturally affiliated to be notified about projects. Tribes must ask in writing.
- 2) Within 14 days of deciding to undertake a project or determining that a project application is complete, the lead agency must provide formal written notification to all tribes who have requested it.
- 3) A tribe must respond within 30 days of receiving the notification if it wishes to engage in consultation.
- 4) The lead agency must initiate consultation within 30 days of receiving the request from the tribe.
- 5) Consultation concludes when both parties have agreed on measures to mitigate or avoid a significant effect to a TCR, OR a party, after a reasonable effort in good faith, decides that mutual agreement cannot be reached.

- 6) Regardless of the outcome of consultation, the CEQA document must disclose significant impacts on TCRs and discuss feasible alternatives or mitigation that avoid or lessen the impact.

4.19.3 Existing Conditions

Based on the cultural resources reports (CRM TECH prepared two cultural resources documents for the proposed AGSP. The first study evaluated the potential prehistoric and historic resources within the Specific Plan boundary. This study is titled "*Historical/Archaeological Resources Reconnaissance Fifth and Third Street Corridor Specific Plan Cities of San Bernardino and Highland, San Bernardino County, California*," December 9, 2017. The second study was prepared to address the potential improvements to the City Creek Bypass Channel. This study is titled "*Historical/Archaeological Resources Survey Report City Creek Channel Project Cities of San Bernardino and Highland San Bernardino County, California*," January 30, 2020. These two reports are provided in Volume 2 of this document as Appendix 3), the project area contains limited archaeological resources. The lack of response from the tribes tends to support this finding.

4.19.4 Cumulative Impacts

As determined above, AGSP implementation can proceed without causing any significant adverse impacts to tribal cultural resources. Because the implementation of the proposed project is not forecast to cause any direct, significant adverse impact to any significant tribal cultural resources without implementation of mitigation measures, the proposed project has no potential to make a cumulatively considerable contribution to tribal cultural resource impacts in the project area, i.e., the AGSP project area. Any tribal cultural resources discovered on a future development site that would be adversely impacted will be mitigated by implementing MM **CUL-1**, MM **CUL-2**, and MM **CUL-3**.

4.19.5 Significant and Unavoidable Impacts

As determined above, no significant and unavoidable impacts to tribal cultural resources will occur as a result of implementing the proposed project.

4.20 UTILITIES AND SERVICE SYSTEMS

4.20.1 Introduction

This section addresses utility services within the AGSP Planning Area and provides an analysis of potential impacts associated with implementation of the AGSP and associated future development. This Subchapter will evaluate the environmental impacts to the issue area of utilities—including wastewater, sewer, electricity, natural gas, stormwater, telecommunication, and solid waste collection systems—from implementation of the proposed Airport Gateway Specific Plan (AGSP). The current status of these systems and the potential future impacts are discussed in the following text.

This document is a full-scope Draft Environmental Impact Report (DEIR) for the above-described project and all of the standard issues related to Utilities and Service Systems identified in Appendix G of the CEQA Guidelines. Analysis of these issues will determine whether implementation of the AGSP would: require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects; have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years; result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's forecast demand in addition to the provider's existing commitments; 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; comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

These issues pertaining to utilities and service systems will be discussed below as set in the following framework:

- 4.20.1 Introduction
- 4.20.2 Regulatory Setting
- 4.20.3 Environmental Setting
- 4.20.4 Thresholds of Significance
- 4.20.5 Methodology
- 4.20.6 Project Impacts
- 4.20.7 Mitigation Measures
- 4.20.8 Cumulative Impacts
- 4.20.9 Unavoidable Adverse Impacts

The following comments from the public regarding utilities and service systems were received during the NOP comment period or at the AGSP Scoping Meeting:

Scoping Meeting Speaker #7 Yassi: The speaker states that utilities should be included in the design of the AGSP and individual projects. The speaker expresses that there is a huge opportunity for recycled water, pipe fitters, potential to implement construction jobs with pipe fitting recycled water.

Response: EVWD is currently under construction with the Sterling Natural Resource Center (SNRC), which will be a state-of-the-art water recycling facility in the City of Highland, that is

designed to provide a sustainable new water supply to boost the region's water independence. The recycled water conveyance pipelines would be primarily constructed along the existing rights-of-way within major east-west roadways within the AGSP. SNRC will be capable of treating up to 10 million gallons a day. The SNRC is being implemented to recharge the local Bunker Hill Groundwater Basin and will provide community education, training space, neighborhood improvements, and new habitat for the Santa Ana Sucker fish. The SNRC will produce Title 22 quality recycled water (recycled water) but it is not currently proposed to be a source to serve the AGSP Planning Area since all of the recycled water produced at the SNRC is intended to be used for groundwater recharge. In a way, groundwater recharge from the SNRC would ultimately benefit future development under the AGSP, as the potable water supply from EVWD serving the project area will be expanded as the availability of groundwater is expanded by the groundwater recharge facilitated by EVWD's SNRC. In order to ensure that the AGSP Planning Area is designed to utilize all available natural resources in a sustainable manner, all non-potable water uses would be designed to accommodate and utilize recycled water if it should become available in the future.

The following reference documents were used in preparing this section of the DEIR.

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- EVWD's 2019 Water Supply Master Plan (WSMP)
- EVWD's 2020 Urban Water Management Plan (UWMP)

4.20.2 Regulatory Setting

Federal

Clean Water Act

The Clean Water Act (CWA) (33 United States Code Section 1251 et seq.) established the regulatory framework for water quality protection in the United States. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining "water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water."

In 1972, the Federal Water Pollution Control Act (Clean Water Act) was amended to prohibit the discharge of pollutants to waters of the United States unless the discharge complies with a National Pollutant Discharge Elimination System (NPDES) permit. The Clean Water Act focused on tracking point sources, primarily from wastewater treatment facilities and industrial waste dischargers, and required implementation of control measures to minimize pollutant discharges. The Clean Water Act was amended again in 1987, adding Section 402(p), to provide a framework for regulating municipal and industrial stormwater discharges. In November 1990, the U.S. Environmental Protection Agency (EPA) published final regulations that establish permit application requirements for specific categories of industries, including construction Projects that encompass greater than or equal to five acres of land. The Phase II Rule became final in December 1999, expanding regulated construction sites to those greater than or equal to one acre.

The regulations require that stormwater and non-stormwater runoff associated with construction activity, which discharges either directly to surface waters or indirectly through municipal separate storm sewer systems (MS4s), must be regulated by an NPDES permit.

Indirect dischargers send their wastewater into a city sewer system, which carries it to the municipal sewage treatment plant, through which it passes before entering a surface water. Though not regulated under NPDES, indirect discharges are covered by another CWA program, called "pretreatment." The National Pretreatment Program is an extension of NPDES regulatory program. The National Pretreatment Program is a cooperative effort of federal, state, and local regulatory environmental agencies established to protect water quality. The program is designed to reduce the level of pollutants discharged by industry and other non-domestic wastewater sources into municipal sewer systems, and thereby, reduce the amount of pollutants released into the environment through wastewater. The term "pretreatment" refers to the requirement that non-domestic sources discharging wastewater to Publicly-Owned Treatment Works (POTWs) control their discharges, and meet limits established by EPA, the state or local authority on the amount of pollutants allowed to be discharged. The control of the pollutants may necessitate treatment prior to discharge to the POTWs, hence the term "pretreatment." Limits may be met by the non-domestic source through pollution prevention techniques (product substitution, recycle and reuse of materials) or treatment of the wastewater. The objectives of the program are to protect POTW from pollutants that may interfere with plant operation, to prevent pollutants that may pass through untreated from being introduced into the POTW, and to improve opportunities for the POTW to reuse wastewater and sludge.

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) is the federal law that protects drinking water supplies and applies to every public water system in the United States. The law requires many actions to protect drinking water including source water protection, treatment, distribution system integrity, and public information. Source water may include rivers, lakes, reservoirs, springs, and ground water wells. The SDWA authorizes the U.S. EPA to set national health-based standards for drinking water to protect against both naturally-occurring and man-made contaminants that may be found in drinking water. The National Primary Drinking Water Regulations set enforceable maximum contaminant levels (MCLs) for particular contaminants in drinking water or required ways to treat water to remove contaminants. Each standard also includes requirements for water systems to test for contaminants in the water to make sure standards are achieved.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) (40 CFR, Part 258 Subtitle D) establishes minimum location standards for siting municipal solid waste landfills. In addition, because California laws and regulations governing the approval of solid waste landfills meet the requirements of Subtitle D, the U.S. EPA has delegated the enforcement responsibility to the State of California.

State

California Water Quality Laws

In California, the State Water Resources Control Board (State Board or SWRCB) and nine Regional Water Quality Control Boards (Regional Board or RWQCB) are responsible for implementing the federal Clean Water Act (CWA) and the California Porter-Cologne Water Quality Control Act (Porter-Cologne Act) with the goal of ensuring the highest reasonable quality of waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The

Porter-Cologne Act, California Water Code section 13000 et seq., directs each RWQCB to develop a Water Quality Control Plan (Basin Plan) for all areas within its region. The Basin Plan is the basis for each RWQCB's regulatory programs. The proposed project is located within the purview of the Santa Ana RWQCB (Region 8), and must comply with applicable elements of the region's Basin Plan, as well as other requirements of the Porter-Cologne Act.

The Clean Water Act provides that states are authorized to operate their own NPDES programs provided such programs meet minimum federal requirements. The Santa Ana RWQCB issues the municipal storm water National Pollutant Discharge Elimination System permit. The City of Placentia currently operates under Permit No. CAS618030, Order No. R8-2010-0062.

Order No. R8-2002-0010 expired on January 19, 2007. On July 22, 2006, the permittees submitted a Report of Waste Discharge for renewal of the Permit. On February 20, 2007, Order No. 2002-0010, NPDES No. CAS618030, was administratively extended in accordance with Title 23, Division 3, Chapter 9, §2235.4 of the California Code of Regulations.

The State Water Resources Control Board adopted Resolution No. 2012-0032, the Water Quality Control Policy for Siting, Design, Operation and Maintenance of Onsite Wastewater Treatment Systems (OWTS Policy) that established statewide standards for septic systems on June 19, 2012. On April 25, 2014, the Santa Ana Regional Water Quality Control Board adopted Resolution No. R8-2014-0005 amending the Water Quality Control Plan (Basin Plan), in part, to incorporate State Board's 2012 OWTS Policy.

State Water Resources Control Board Division of Drinking Water

The U. S. EPA has granted the State of California the authority to implement SDWA within its jurisdiction. The State of California Water Resources Control Board *Division of Drinking Water* regulates public drinking water systems and is responsible for making sure water systems test for contaminants, reviewing plans for water system improvements, conducting on-site inspections and sanitary surveys, providing training and technical assistance, and taking action against water systems not meeting standards.

The SWRCB *Safe Drinking Water Plan* provides a framework for water managers, legislators, and the public to consider options and make decisions regarding California's water future. The Plan, which is updated every five years, represents the State Water Board's assessment of the overall quality of the state's drinking water, the identification of specific water quality problems, an analysis of the known and potential health risks that may be associated with drinking water contamination in California, and recommendations to improve drinking water quality. The Plan also identifies and evaluates existing and proposed statewide water demand management and water supply augmentation programs and projects to address the State's water needs. The Plan provides resource management strategies and recommendations to strengthen integrated regional water management. These strategies can reduce water demand, improve operational efficiency, increase water supply, improve water quality, practice resource stewardship, and improve flood management.

Senate Bill 610

Senate Bill (SB) 610, which has been codified in the California Water Code beginning with Section 10910, requires the preparation of a water supply assessment (WSA) for projects within cities and counties that propose to construct 500 or more residential units or the equivalent. SB 610 stipulates that when environmental review of certain large development projects is required, the water agency that is to serve the development must complete a WSA to evaluate water supplies

that are or will be available during normal, single-dry and multiple-dry years during a 20-year projection to meet existing and planned future demands, including the demand associated with the project. SB 610 requirements do not apply to the general plans of cities or counties, but rather to specific development projects.

Senate Bill 221

SB 221, which has been codified in the California Water Code beginning with Section 10910, requires that the legislative body of a city or county that is empowered to approve, disapprove, or conditionally approve a subdivision map must condition such approval upon proof of sufficient water supply. The term “sufficient water supply” is defined in SB 221 as the total water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection that would meet the projected demand associated with the proposed subdivision. The definition of sufficient water supply also includes the requirement that sufficient water encompass not only the proposed subdivision, but also existing and planned future uses, including, but not limited to, agricultural and industrial uses. SB 221 requirements do not apply to the general plans of cities and counties, but rather to specific development projects.

California Urban Water Management Planning Act

The California Urban Water Management Planning (UWMP) Act (Division 6 Part 2.6 of the California Water Code Sections 10610 - 10656) requires every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually, to make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The California Water Code describes the contents of the UWMP, as well as how urban water suppliers should adopt and implement the plans. These plans are updated every five years and submitted to the Department of Water Resources (DWR). Requirements for the urban water management plans include:

- Assessment of current and projected water supplies
- Evaluation of demand and customer types
- Evaluation of the reliability of water supplies
- Description of conservation measures implemented by the urban water supplier
- Response plan for in the event of water shortage
- Comparison of demand and supply projection

California Water Conservation Act of 2009

The California Water Conservation Act of 2009 stemmed from the Governor’s goal to achieve a 20% statewide reduction in urban per capita water use by 2020 intended to reduce Bay Delta conflicts between environmental conservation and water supply. The Act requires each urban retail water supplier to develop urban water use targets to achieve the 20% reduction by 2020 goal and the interim 10% reduction by 2015 goal. Each urban retail water supplier as required to include the following information from its target-setting process in its 2015 UWMPs:

- Baseline daily per capita water use
- 2020 urban water use target
- 2015 interim water use target compliance
- Compliance method being used along with calculation method and support data
- An implementation plan to meet the targets

Senate Bill 1420

SB 1420, Distribution System Water Losses, requires water purveyors to quantify distribution system losses for the most recent 12-month period available. This information is included in UWMPs.

Executive Order B-37-16

As directed by former Governor Edmund G. Brown Jr. in Executive Order B-37-16, the State Water Resources Control Board maintains urban water use reporting requirements and prohibitions on wasteful practices such as watering during or after rainfall, hosing off sidewalks and irrigating ornamental turf on public street medians.

California Code of Regulations (CCR)

Pursuant to CCR Title 23, Division 3, Article 2 (Waste Classification and Management) and Article 3 (Waste Unit Classification and Siting), Class III (municipal solid waste) landfills are sited in accordance with criteria that are similar to those found in Subtitle D of RCRA. CCR Title 27 includes various regulations pertaining to siting, design, construction, and operation of solid waste landfills.

Protection of Underground Infrastructure

The California Government Code Section 4216-4216.9 “Protection of Underground Infrastructure” requires an excavator to contact a regional notification center (e.g., Underground Services Alert or Dig Alert) at least two days prior to excavation of any subsurface installations. Any utility provider seeking to begin a project that could damage underground infrastructure can call Underground Service Alert, the regional notification center for southern California.

Underground Service Alert will notify the utilities that may have buried lines within 1,000 feet of the project. Representatives of the utilities are then notified and are required to mark the specific location of their facilities within the work area prior to the start of project activities in the area.

California Energy Action Plan II

The California Energy Action Plan II is the state’s principal energy planning and policy document (California Energy Commission, 2005, 2008). The plan identifies state-wide energy goals, describes a coordinated implementation plan for state energy policies, and identifies specific action areas to ensure that California’s energy is adequate, affordable, technologically advanced, and environmentally sound. In accordance with this plan, the first priority actions to address California’s increasing energy demands are energy efficiency and demand response (i.e., reduction of customer energy usage during peak periods in order to address system reliability and support the best use of energy infrastructure). Additional priorities include the use of renewable sources of power and distributed generation (i.e., the use of relatively small power plants near or at centers of high demand). To the extent that these actions are unable to satisfy the increasing energy and capacity needs, clean and efficient fossil-fired generation is supported.

In 2002, California established its Renewable Portfolio Standard program, with the goal of increasing the percentage of renewable energy in the state’s electricity mix to 20 percent by 2017. The California Energy Commission subsequently accelerated that goal to 2010, and further recommended increasing the target to 33 percent by 2020. Because much of electricity demand growth is expected to be met by increases in natural-gas-fired generation, reducing consumption of electricity and diversifying electricity generation resources are significant elements of plans to reduce natural gas demand.

California Department of Resources Recycling and Recovery (CalRecycle) Formerly California Integrated Waste Management Board (CIWMB)

CalRecycle is the State agency designated to oversee, manage, and track California's 76 million tons of waste generated each year. It is one of the six agencies under the umbrella of the California Environmental Protection Agency. CalRecycle develops laws and regulations to control and manage waste, for which enforcement authority is typically delegated to the local government. CalRecycle works jointly with local government to implement regulations and fund programs.

The Integrated Waste Management Act of 1989 (Public Resources Code [PRC] 40050 et seq. or Assembly Bill [AB] 939, codified in PRC 40000), administered by CalRecycle, requires all local and county governments to adopt a Source Reduction and Recycling Element to identify means of reducing the amount of solid waste sent to landfills. This law set reduction targets at 25 percent by the year 1995 and 50 percent by the year 2000. To assist local jurisdictions in achieving these targets, the California Solid Waste Reuse and Recycling Access Act of 1991 requires all new developments to include adequate, accessible, and convenient areas for collecting and loading recyclable and green waste materials.

California Integrated Waste Management Act of 1989 (AB 939)

The California Integrated Waste Management Act of 1989 (AB 939) redefined solid waste management in terms of both objectives and planning responsibilities for local jurisdictions and the state. The act was adopted in an effort to reduce the volume and toxicity of solid waste that is landfilled and incinerated by requiring local governments to prepare and implement plans to improve the management of waste resources. AB 939 required each of the cities and unincorporated portions of the counties to divert a minimum of 25 percent of the solid waste landfilled by 1995 and 50% by the year 2000. To attain goals for reductions in disposal, AB 939 established a planning hierarchy utilizing new integrated solid waste management practices. These practices include source reduction, recycling and composting, and environmentally safe landfill disposal and transformation.

California Solid Waste Reuse and Recycling Act of 1991 (AB 1327)

Other state statutes pertaining to solid waste include compliance with the California Solid Waste Reuse and Recycling Act of 1991 (AB 1327), which requires the local jurisdiction to require adequate areas for collecting and loading recyclable materials within a development project for commercial, institutional, marina, and residential buildings with 5 units or more.

California's Green Building Standards Code (CALGreen)

Effective Jan. 1, 2011, California's Green Building Standards Code (CALGreen) requires the diversion of at least 50 percent of the construction waste generated during most "new construction" projects (CALGreen Sections 4.408 and 5.408). Subsequent amendments have expanded upon what types of construction are covered. In all jurisdictions, including those without a Construction and Debris (C&D) ordinance requiring the diversion of 50 percent of construction waste, the owners/builder of construction projects within the covered occupancies are required to divert 50 percent of the construction waste materials generated during the project. The 50 percent C&D diversion rate can be met through three methods: 1) develop and submit a waste management plan to the jurisdiction's enforcement agency which identifies materials and facilities to be used and document diversion, 2) use a waste management company, approved by the enforcing agency, that can document 50 percent diversion, or 3) use the disposal reduction alternative, as appropriate for the type of project. If the waste management plan option is used, the plan should be developed before construction begins, and project managers should use the project's planning phase to estimate materials that will be generated and identify diversion

strategies for those materials. All covered projects should be able to divert 50 percent non-hazardous waste.

California Assembly Bill 341

In 2012, Assembly Bill 341 (AB 341) was signed into law in California to help reduce greenhouse gas emissions and set a statewide goal to recycle, compost, or source reduce 75 percent of all solid waste generated in California by 2020. This legislation requires businesses and multi-family residential dwellings of five units or more, that generate four or more cubic yards of commercial solid waste per week, to implement a recycling program.

California Assembly Bill 1826

One of the five key strategies the State identified to meet the waste diversion goal of 75% is increased composting of organic materials, which make up approximately one-third of all waste disposed of in the state. In 2014, the State legislature enacted AB 1826, which requires jurisdictions to develop programs for businesses to begin recycling organic waste, including food waste. Multifamily residences with at least five units must also begin recycling organic waste, although food waste does not have to be included in the multi-family program.

California Senate Bill 1383

SB 1383 - establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025 and regulations to become effective by 2022.

Local

City of Highland Public Services & Facilities Element

The City of Highland General Plan offers the following Public Services and Facilities Goals and Policies regarding utilities and service systems:

Public Services and Facilities Element: Goal 4.1

Coordinate and balance the provision of public services with development activity to eliminate service gaps, maximize the use of public facilities, provide efficient and economical public services, achieve the equitable and legally defensible sharing of costs of such services and facilities, and maintain adequate service systems capable of meeting the needs of Highland residents.

Public Services and Facilities Element: Policy 1

Prior to permitting, ensure that all major extensions of services, facilities and utilities are comprehensively reviewed for related social, economic and environmental impacts and identify mitigation measures as appropriate.

Public Services and Facilities Element: Policy 2

Ensure that proposed development, which requires the extension of public services and facilities, will generate sufficient municipal income to pay for the operations, maintenance and replacement of those services and facilities by the City.

Public Services and Facilities Element: Policy 3

Ensure that existing residents and businesses are not burdened with the cost of financing infrastructure aimed at supporting new development or the intensification of existing development.

Public Services and Facilities Element: Policy 4

Continue to ensure that public water, sewer, drainage and other facilities needed for a project phase are constructed prior to or concurrent with initial development within that phase, unless otherwise approved by the City.

Public Services and Facilities Element: Policy 5

Continue to make the project sponsor of a proposed development ultimately responsible for ensuring the timely availability of all infrastructure improvements (including system-wide improvements) needed to support the development.

Public Services and Facilities Element: Policy 6

Continue to require that deficiencies in existing public services and facilities are corrected prior to or concurrent with proposed development.

Public Services and Facilities Element: Policy 7

Continue to coordinate with public service and utility companies to assure the long-term provision of services including water, wastewater, solid waste, electricity, natural gas and other private utilities (e.g., cable, Internet, telephone) for City residents.

Public Services and Facilities Element: Policy 8

Continue to direct future growth to areas with adequate existing facilities and services, or areas with adequate facilities and services committed, or areas where public services and facilities can be economically extended.

Public Services and Facilities Element: Policy 9

Develop a public facility assessment reporting system as part of the Capital Improvement Program and in accordance with AB 1600 to monitor the capacity of existing facilities to ensure that new developments do not overwhelm existing facilities. The following are guidelines for developing the reporting system:

- Identify and understand the demands for services that will be placed on Highland by regional demographic and economic changes.
- Monitor the progress of current local development projects, and ensure that public service and facility plans, as well as their forecasts and funding mechanisms, reflect changing conditions.
- Track the status of capital improvement program implementation.
- Develop a community survey to identify public facility deficiencies and usage.

Public Services and Facilities Element: Policy 10

Conduct and maintain an inventory of the availability and adequacy of public services and facilities in coordination with the County and service agencies in the area. Use the information to coordinate capital improvement programs and to make determinations on the adequacy of community facilities.

Public Services and Facilities Element: Policy 11

Continue to follow the procedures established for the regular exchange of information regarding proposed development and availability and adequacy of public services and facilities.

Public Services and Facilities Element: Policy 12

Continue to utilize a proactive approach to assuring that the flow of information between service agencies is maintained.

Public Services and Facilities Element: Policy 13

Utilize performance standards to determine the adequacy of public services and facilities and to establish requirements, fees and exactions provided by new development in the City.

Public Services and Facilities Element: Policy 14

Maintain a development review process that places the ultimate responsibility on the project sponsor for ensuring that necessary infrastructure improvements (including system-wide improvements) needed to support new development are, in fact, available at the time they are needed.

Public Services and Facilities Element: Policy 15

Require the construction of public facilities as a condition of approval for a proposed development if the development exceeds the capacity of existing public facilities to support such development.

Public Services and Facilities Element: Policy 16

Continue to require that project applicants provide sufficient information in the application process so that the City may comprehensively determine the potential impacts and/or the need for improvements to existing services and facilities to support project buildout consistent with the City's performance.

Public Services and Facilities Element: Policy 17

Continue to require that all new development pay the applicable Development Impact Fees established by the City Council.

Public Services and Facilities Element: Policy 18

Maintain flexibility in the collection and application of Development Impact Fees to permit the construction of master planned facilities in lieu of fees when the City determines that it is in the public interest to do so.

Public Services and Facilities Element: Policy 19

Continue to require the construction of public facilities as a condition of approval where the value of the services and facilities needed to support buildout of a proposed development exceed established Development Impact Fees, as consistent with the City's performance standards. Require an agreement with the developer for reimbursement from future development fees for the excess costs. Such reimbursements shall be from future fees collected for the specific excess facilities, which the initial developer was required to construct.

Public Services and Facilities Element: Policy 20

In the event that the performance standards for public services and facilities are not being met, the following conditions shall apply:

- Where the performance standards are not being met due to needs created by existing development, the City Council shall adopt in its Capital Improvement Plan a program to ensure that the performance criteria will be met at the earliest possible date.
- In instances where the performance standards are being exceeded prior to approval of a proposed development as the result of existing development, require that the proposed development provide such facilities as are necessary to ensure that performance criteria are met for new public facilities and services provided to the development, and that existing public services and facilities are not further downgraded.

Public Services and Facilities Element: Policy 21

Review the development fee structure, user charges, and mitigation fees every five years in accordance with the provisions of AB 1600 to ensure that the charges are consistent with the costs of improvement and maintenance and that public services and facilities are being expanded in a cost-efficient manner. Utilize the City's performance standards for public services and facilities as the basis for this review.

Public Services and Facilities Element: Policy 22

Continue to require that planned communities participate in the development of public infrastructure, in addition to the payment of development impact fees, through the following methods:

- An approved development agreement for all new specific plan or planned unit development projects that specifies the timing of infrastructure improvements in relation to project development.
- An annual review of improvements conducted for all new specific plans and an annual report in a format that can be easily included in the City's infrastructure assessment and reporting system.

Public Services and Facilities Element: Policy 23

Continue to proactively monitor and review development proposals in surrounding areas to protect City interests and minimize impacts on the community.

Public Services and Facilities Element: Policy 24

Continue to work with the County on a system of requiring appropriate mitigation to ensure that new unincorporated development will not impact services and facilities in the City.

Public Services and Facilities Element: Policy 25

Continue to support an assessment district alternative to development impact fees for large-scale developments undergoing urbanization when a single owner or small number of owners is involved, and when it is in the public interest to do so.

Public Services and Facilities Element: Policy 26

Continue to allow new development and the intensification of existing development only where and when adequate public services and facilities can be provided.

Public Services and Facilities Element: Goal 4.2

Provide a water system that produces high quality water, sufficient water pressure and necessary quantities of water to meet domestic demands.

Public Services and Facilities Element: Policy 1

Continue to work with the East Valley Water District to provide an efficient and economic distribution of adequate water supply and pressure to the District's service areas in Highland.

Public Services and Facilities Element: Policy 2

Ensure a high-quality water supply that meets or exceeds state and federal health standards.

Public Services and Facilities Element: Policy 3

Work with the East Valley Water District and local elected representatives to better define the future availability of water for the Highland community.

Public Services and Facilities Element: Policy 4

Work with the East Valley Water District to promote water conservation and education programs, such as public education programs available through the Environmental Learning Center in Highland.

Public Services and Facilities Element: Goal 4.3

Provide a safe and effective sewer system that meets the needs of Highland residents, businesses and visitors.

Public Services and Facilities Element: Policy 1

Continue an ongoing dialogue with the East Valley Water District regarding funding and scheduling of any additional sewage facilities needed to serve the City.

Public Services and Facilities Element: Policy 2

Work with relevant agencies to determine the long-term supply of reclaimed wastewater and service to potential future uses within the City.

Public Services and Facilities Element: Policy 3

Encourage Grey Water Recycling, especially for residential use irrigation.

Public Services and Facilities Element: Goal 4.4

Maintain an effective drainage system that protects people and property from overflows and flood disasters.

Public Services and Facilities Element: Policy 1

Continue to improve any deficiencies in the City's drainage system and address the long-term needs associated with future development to minimize flood damage and adequately direct rainfall and subsequent runoff.

Public Services and Facilities Element: Policy 2

Minimize the impact of development on the City's drainage system by reducing the amount of impervious surface associated with new development and encouraging site design features or landscaping that capture runoff. Encourage on-site retention of stormwater and compliance with requirements of the National Pollutant Discharge Elimination System.

Public Services and Facilities Element: Goal 4.5

Minimize, recycle, and dispose of solid waste in an efficient and environmentally sound manner.

Public Services and Facilities Element: Policy 1

Ensure that solid waste generated within the City is collected and transported in a cost-effective manner and protects the public's health and safety.

Public Services and Facilities Element: Policy 2

Continue to support an ongoing dialogue with the County Solid Waste Management on the rail haul access and other regional solutions for long-term limits on local landfill capacity.

Public Services and Facilities Element: Policy 3

Reduce the volume of solid waste material sent to landfills by continuing source reduction, recycling and composting programs in compliance with State law and encouraging the participation of all residents and businesses in these programs.

Public Services and Facilities Element: Policy 4

Increase the price paid for recycling glass and plastic from private vendors.

Public Services and Facilities Element: Goal 4.6

Coordinate with private utility companies to ensure the adequate provision of electricity, natural gas and telecommunication infrastructure to existing and new development.

Public Services and Facilities Element: Policy 1

Continue to coordinate with the local gas and electric companies on the location and timing of additional energy facilities needed within the City.

Public Services and Facilities Element: Policy 2

Coordinate with private utilities to provide Highland residents, schools and businesses with an efficient telecommunications infrastructure, including telephone, cable and high-speed services, such as high-speed Internet.

City of San Bernardino Public Services & Facilities Element

The City of San Bernardino General Plan offers the following Public Services and Facilities Goals and Policies regarding utilities and service systems:

Utilities Element: Goal 9.1

Coordinate and balance the provision of public services with development activity to eliminate service gaps, maximize the use of public facilities, provide efficient and economical public services, achieve the equitable and legally defensible sharing of costs of such services and facilities, and maintain adequate service systems capable of meeting the needs of Highland residents.

Utilities Element: Policy 9.1.1

Provide for the construction of upgraded and expanded wastewater collection and treatment improvements to support existing and new development, and to meet usage requirements and maximize cost efficiency, especially in areas where existing systems are deficient.

Utilities Element: Policy 9.1.2

Maintain and replace existing wastewater collection and treatment facilities as necessary.

Utilities Element: Policy 9.1.3

Require new development to connect to a master planned sanitary sewer system in accordance with the Department of Public Works' "Sewer Policy and Procedures". Where construction of master planned facilities is not feasible, the Mayor and Common Council may permit the construction of interim facilities sufficient to serve the present and short- term future needs.

Utilities Element: Policy 9.1.43

Evaluate the City's Sewer Collection System Master Plan and the Board of Water Commissioner's Master Plan for Wastewater Treatment Facilities as necessary to accurately determine which collection and treatment facilities will be needed to serve present and future growth in the City.

Utilities Element: Policy 9.1.5

Review development proposals for projects within the City's Sphere of Influence and request the County to disapprove any project that cannot be served with adequate public wastewater collection and treatment facilities. (U-1)

Utilities Element: Policy 9.1.6

Ensure that any proposed septic systems comply with the Santa Ana Regional Water Quality Control Board's minimum lot size requirements, which are one-half acre as of 2005. (LU-1)

Utilities Element: Goal 9.2

Ensure that all wastewater collection and treatment facilities are operated to maximize public safety.

Utilities Element: Policy 9.2.1

Provide for the monitoring of toxic or potentially toxic businesses to prevent contamination of water and wastewater.

Utilities Element: Policy 9.2.2

Require, when necessary, pre-treatment of wastewater from industrial sources prior to treatment at the Water Reclamation Facility.

Utilities Element: Goal 9.3

Ensure that all wastewater collection and treatment facilities are operated to maximize public safety.

Utilities Element: Policy 9.3.1

Provide for the construction of upgraded and expanded water supply, transmission, distribution, storage, and treatment facilities to support existing and new development. (LU-1 and U-4)

Utilities Element: Policy 9.3.2

Maintain and replace existing water supply, transmission, distribution, storage systems, and treatment facilities as necessary. (U-4)

Utilities Element: Policy 9.3.3

Require adequate water supply, transmission, distribution, storage, and treatment facilities to be operational prior to the issuance of certificates of occupancy. (LU-1)

Utilities Element: Policy 9.3.4

Monitor the demands on the water system and, as necessary, manage development to mitigate impacts and/or facilitate improvements.

Utilities Element: Policy 9.3.5 Impose limits on new water hook-ups, if necessary, to comply with available domestic water supply.

Utilities Element: Policy 9.3.6

Request the Board of Water Commissioners to evaluate the Water System Master Plan, as necessary, to accurately determine which water facilities will be needed to serve present and future growth in the City.

Utilities Element: Goal 9.4

Provide appropriate storm drain and flood control facilities where necessary.

Utilities Element: Policy 9.4.1

Ensure that adequate storm drain and flood control facilities are provided in a timely manner to protect life and property from flood hazards.

Utilities Element: Policy 9.4.2

Upgrade and expand storm drain and flood control facilities to eliminate deficiencies and protect existing and new development.

Utilities Element: Policy 9.4.3

Maintain existing storm drain and flood control facilities.

Utilities Element: Policy 9.4.4

Require that adequate storm drain and flood control facilities be in place prior to the issuance of certificates of occupancy. Where construction of master planned facilities is not feasible, the Mayor and Common Council may permit the construction of interim facilities sufficient to protect present and short-term future needs. (LU-1)

Utilities Element: Policy 9.4.5

Implement flood control improvements that maintain the integrity of significant riparian and other environmental habitats.

Utilities Element: Policy 9.4.6

Minimize the disturbance of natural water bodies and natural drainage systems. (LU-1)

Utilities Element: Policy 9.4.7

Develop San Bernardino's flood control system for multi- purpose uses, whenever practical and financially feasible.

Utilities Element: Policy 9.4.8

Minimize the amount of impervious surfaces in conjunction with new development. (LU-1)

Utilities Element: Policy 9.4.9

Develop and implement policies for adopting Sustainable Stormwater Management approaches that rely on infiltration of stormwater into soils over detention basins or channels. Sustainable Stormwater Management techniques include use of pervious pavements, garden roofs, and bioswales to treat stormwater, and reusing stormwater for non-potable water uses such as landscape irrigation and toilet/urinal flushing. (LU-1)

Utilities Element: Policy 9.4.10

Ensure compliance with the Federal Clean Water Act requirements for National Pollutant Discharge Elimination System (NPDES) permits, including requiring the development of Water Quality Management Plans, Erosion and Sediment Control Plans, and Storm Water Pollution Prevention Plans for all qualifying public and private development and significant redevelopment in the City. (LU-1)

Utilities Element: Policy 9.4.11

Implement an urban runoff reduction program consistent with regional and federal requirements, which includes requiring and encouraging the following examples of Best Management Practices (BMPs) in all developments:

- Increase permeable areas, utilize pervious materials, install filtration controls (including grass lined swales and gravel beds), and divert flow to these permeable areas to allow more percolation of runoff into the ground;
- Replanting and hydroseeding of native vegetation to reduce slope erosion, filter runoff, and provide habitat;
- Use of porous pavement systems with an underlying stone reservoir in parking areas;
- Use natural drainage, detention ponds, or infiltration pits to collect and filter runoff;
- Prevent rainfall from entering material and waste storage areas and pollution-laden surfaces; and
- Require new development and significant redevelopment to utilize site preparation, grading, and other BMPs that provide erosion and sediment control to prevent construction-related contaminants from leaving the site and polluting waterways. (LU-1)

Utilities Element: Goal 9.5

Provide an adequate and orderly system for the collection and disposal of solid waste to meet the demands of new and existing developments in the City.

Utilities Element: Policy 9.5.1

Install and maintain public trash receptacles along incorporated City streets in commercial areas and along major arterials.

Utilities Element: Policy 9.5.2

Provide regular street sweeping.

Utilities Element: Policy 9.5.3

Continue to reduce the amount of solid waste that must be disposed of in area landfills, to conserve energy resources, and be consistent with the County Solid Waste Management Plan and State law.

Utilities Element: Policy 9.5.4

Continue to support implementation of regional recycling programs through participation in the County Solid Waste Advisory Committee, the County Solid Waste Management Plan, and appropriate State programs.

Utilities Element: Policy 9.5.5

Develop and participate in local recycling programs.

Utilities Element: Policy 9.5.6

Develop and implement a program of public education regarding the benefits of recycling.

Utilities Element: Goal 9.6

Ensure an adequate, safe, and orderly supply of electrical energy is available to support existing and future land uses within the City on a project level.

Utilities Element: Policy 9.6.1

Require that approval of new development be contingent upon the ability to be served with adequate electrical facilities. (LU-1)

Utilities Element: Policy 9.6.2

Underground utilities, including on-site electrical utilities and connections to distribution facilities, unless such undergrounding is proven infeasible. (U-2)

Utilities Element: Policy 9.6.3

Provide adequate illumination of all streets, alleys (under special conditions), and public areas; upgrading areas that are deficient and maintaining lighting fixtures in good working order.

Utilities Element: Policy 9.6.4

Require improvements to the existing street light system and/or new street light systems necessitated by a new development proposal be funded by that development.

Utilities Element: Policy 9.6.5

Encourage and promote the use of energy-efficient (U.S. Department of Energy "Energy Star" or equivalent) lighting fixtures, light bulbs, and compact fluorescent bulbs in residences, commercial, and public buildings, as well as in traffic signals and signs where feasible. (LU-1)

Utilities Element: Goal 9.7

Ensure an adequate supply of natural gas is available to support existing and future land uses within the City at a project level.

Utilities Element: Policy 9.7.1

Work with the Southern California Gas Company to ensure that adequate natural gas facilities are available to meet the demands of existing and new developments.

Utilities Element: Policy 9.7.2

Require that all new development served by natural gas install on-site pipeline connections to distribution facilities underground, unless such undergrounding is infeasible due to significant environmental or other constraints. (U-2)

Utilities Element: Goal 9.8

Ensure the operation and maintenance of telecommunications systems to support existing and future land uses within the City.

Utilities Element: Policy 9.8.1

Provide for the continued development and expansion of telecommunications systems including cable and, as feasible, fiber optics, for entertainment, education, culture, information access, two-way communication between government and residents and businesses, and other similar purposes.

Utilities Element: Policy 9.8.2

Require that all new developments underground telecommunication facilities, unless such undergrounding is infeasible due to significant environmental or other constraints. (U-2)

Utilities Element: Policy 9.8.3

Cooperate with, and encourage public utilities to provide a fiber optics network in the City that is linked to regional systems.

Utilities Element: Goal 9.9

Use the City's available geothermal resources as an alternative to natural gas and electricity.

Utilities Element: Policy 9.9.1

Provide for the continued development and expansion of geothermal energy distribution lines. (U-3)
Provide public funding to expand the existing geothermal production and distribution system. (U-3)

Utilities Element: Policy 9.9.2

Promote the use of geothermal resources particularly in the South San Bernardino Area.

Utilities Element: Goal 9.10

Ensure that the costs of infrastructure improvements are borne by those who benefit.

Utilities Element: Policy 9.10.1

Require that new development proposals bear the cost to improve wastewater collection and treatment facilities, water supply transmission, distribution, storage, and treatment facilities, and storm drain and flood control facilities as necessitated by the proposed project. This shall be accomplished either through the payment of fees, or by the actual construction of the improvements. (LU-1)

Utilities Element: Policy 9.10.2

Collect adequate amounts of fees and charges to fund the operation/maintenance of existing facilities and to construct new facilities.

Utilities Element: Policy 9.10.3

Review utility, capacity, and infrastructure fees, as well as development, acquisition of service, and monthly service charges on an annual basis to ensure that adequate amounts of fees and charges are collected to fund the operation/ maintenance of existing facilities and to construct new facilities.

Utilities Element: Policy 9.10.4

Provide public funding support for expansion and upgrading of public utilities and infrastructure when improvements will provide substantial public benefit to the City.

Utilities Element: Policy 9.10.5

Allow the formation of benefit assessment districts and community facilities districts, where appropriate, in which those who benefit from specific improvements pay a pro rata share of the costs.

4.20.3 Environmental Setting: Utilities and Service Systems

4.20.3.1 Wastewater

This section identifies the wastewater management system that serves the Cities of San Bernardino and Highland within the AGSP and provides an analysis of potential impacts associated with implementation of the AGSP. This section is based upon information from the Cities of Highland and San Bernardino General Plans, and East Valley Water District.

The existing sewer system consists of approximately 213 miles of pipeline, 4,500 sewer manholes, 7 siphons, and 5 diversion structures. The existing sewer system conveys flows into the East Trunk Sewer which presently discharges to the San Bernardino Water Reclamation Plant (SBWRP) until the Sterling Natural Resources Center (SNRC) is completed and in operation. The existing sewer system, including transmission and collection pipeline, siphons, and manholes has been evaluated. The evaluation included existing and future conditions for deficiencies and to identify areas for improvements.

EVWD's sewer pipeline network includes approximately 213 miles of pipeline ranging in size from 4 inches to 24 inches in diameter. The East Trunk Sewer is approximately 9 miles long ranging in size from 8 inches to 54 inches in diameter. EVWD's system, including the East Trunk Sewer, encompasses nine siphons to convey flows under creeks and flood control channels. EVWD has five diversion structures in its sewer collection system. Diversion structures are generally installed in manholes to divert flows along a specific route in case of a blockage in the system or during times of high flow. EVWD's sewer system does not include any lift stations or force mains. All flow is conveyed by gravity into the East Trunk Sewer.

EVWD maintains all of the sewer pipes in the AGSP Planning Area, which are gravity collection system pipelines of a variety of sizes made mostly of vitrified clay pipe (VCP). The majority of the pipelines were built between 1960 and 1980. A few segments were built at a later date. The backbone wastewater system in the AGSP Planning Area includes:

- A 24-inch VCP located in 6th Street traverses the length from Tippecanoe Street to Elm Street.
- A 21-inch VCP located in 6th Street traverses the length from Elm Street to Victoria Avenue.
- A 10-inch VCP located in 6th Street traverses the length from Victoria Avenue to Cunningham Street.
- An 8-inch VCP located in 6th Street traverses the length from Cunningham Street to Central Avenue.
- An 8-inch VCP located in 5th Street starting at Marlyn Avenue to 214 feet east of Shirley Avenue.
- A 21-inch VCP located in 5th Street traverses the length from Victoria Avenue to Cunningham Street.
- A 24-inch VCP located in 5th Street traverses the length from Cunningham Street to Route 10
- An 8-inch VCP located in 4th Street starting at Marlyn Avenue to 214 feet east of Shirley Avenue.
- There are new sewer pipes in 3rd Street.

4.20.3.2 Water

This section identifies the existing water supply and distribution system that serves the Cities of San Bernardino and Highland within the AGSP area and provides an analysis of potential impacts associated with implementation of the AGSP. This section is based upon information from the Cities of Highland and San Bernardino General Plans, and East Valley Water District.

Potable Water

Potable water will be provided to the AGSP Planning Area by East Valley Water District (EVWD). EVWD's existing supply sources consist of local groundwater, surface water from the Santa Ana River obtained through the North Fork Water Company delivery system, and imported water from the State Water Project (SWP). The AGSP Planning Area project is in a portion of EVWD's Lower

Zone but mostly the project is in EVWD's Intermediate Zone. There is enough supply to meet existing demands under maximum day demand (MDD) conditions. The largest single source analysis from EVWD's 2019 Water Supply Master Plan (WSMP) indicates there are supply deficits in the Lower Zone and Intermediate Zone if the largest single source is out of service during MDD conditions. However, the ability to transfer water from other zones would allow these supply deficits to be mitigated in the unlikely event that these overlapping conditions occur.

EVWD operates existing water distribution infrastructure located throughout the AGSP Planning Area with major east-west pipelines in 6th Street, some pipelines in 5th Street and some pipelines in 3rd Street. Within the project area there are six (6) active wells and four (4) pump stations all within the Lower and Intermediate Zones. The Lower Zone is west of Sterling Avenue and the Intermediate Zone is east of Sterling Avenue to Palm Avenue. The backbone water system in the AGSP Planning Area includes:

- A 12-inch cement line and coated water main located in 6th Street traverses the length from Tippecanoe Street to Sterling Street.
- A 36-inch ductile iron line starting at Indian Springs High School located along 6th Street and the pipeline traverses east to Grape Street. As part of the SNRC Project, the segment of this ductile iron line west of Sterling Avenue will be converted to a recycled water line.
- An 8-inch ductile iron line located in 6th Street from Victoria Avenue to Alabama Avenue.
- A 6-inch ACP line located in 6th Street from Victoria Avenue to Alabama Avenue.
- A 12-inch ductile iron line located in 5th Street traverses the length from Tippecanoe Street to 1,000 feet east of Del Rosa Drive.
- A 6 5/8-inch cement line and coated water main located in 5th Street immediately north of San Bernardino Airport supplied by Plant 141.
- A combination of 8-inch and 16-inch ductile iron line located in 4th Street transverses the length from Tippecanoe Street to the termination at San Bernardino International Airport.
- A 12-inch ductile iron line located in 3rd Street traverses the length from Tippecanoe Street to Shirley Avenue.
- A 16-inch ductile iron line located in 3rd Street immediately north of San Bernardino Airport supplied by Plant 141.
- An 8-inch ACP and ductile iron line located in 3rd Street from Victoria Avenue to Alabama Avenue.

The City of San Bernardino Municipal Water Department (SBMWD) does not supply water within the City of Highland; however, SBMWD supplies water to portions of the City of San Bernardino and unincorporated areas of the San Bernardino County including infrastructure within the 3rd Street and 5th Street AGSP Planning Area. At the intersection of Tippecanoe Avenue and 3rd Street there is an intertie with the AGSP Planning Area via a 12-inch pipeline. The 12-inch pipeline continues east on 3rd Street and terminates east of Del Rosa Drive. This 12-inch pipeline supplies the distribution system south of 3rd Street, specifically for the San Bernardino International Airport.

The existing water infrastructure system is shown in Figure 3-5 and existing water pipelines by diameters are shown in Figure 3-6.

Recycled Water

EVWD is currently nearing completion of constructing the SNRC which will be a state-of-the-art water recycling facility in the City of Highland, that will provide a sustainable new water supply to boost the region's water independence. The SNRC is being constructed on a 14-acre parcel of land located at North Del Rosa Drive between East 5th Street and East 6th Street. The SNRC

Treatment Facility would be located on the eastern property while the Administration Center would be located on the western parcel. The recycled water conveyance pipelines are proposed to be constructed along the existing rights-of-way within 6th Street. SNRC will be capable of treating up to 10 million gallons a day. The SNRC is being implemented to recharge the local Bunker Hill Groundwater Basin and will provide community education, training space, neighborhood improvements, and new habitat for the Santa Ana sucker, a species of fish. The SNRC will produce Title 22 quality recycled water but this recycled water will not be a source to serve the AGSP Planning Area, since all of the recycled water produced at the SNRC is intended to go to groundwater recharge. In order to ensure that the AGSP Planning Area is designed to utilize all available natural resources in a sustainable manner in the future, all non-potable water uses shall be designed to accommodate and utilize recycled water if it should become available in the future. The City Engineers of the two cities shall have the authority but shall not be required to waive the requirement if at any time they deem such a design requirement is infeasible.

4.20.3.3 Stormwater / Drainage

The existing drainage system in the project area is fairly rudimentary. Figure 3-8 identifies the Specific Plan Area, the overall watershed area of the project improvements, existing storm drain systems, proposed storm drain systems and infrastructure storm drain systems identified by Comprehensive Storm Drain Plan #6 (CSDP #6) prepared by San Bernardino County Flood Control District. Storm water runoff within the area flows to the south over a very shallow grade. The following information is abstracted from a study of the area hydrology by JLC Engineering & Consulting, Inc, titled "Preliminary Hydrology and Channel Design for City Creek By-Pass Channel," April 20, 2020. The City Creek Bypass Channel is located along 3rd and 5th Streets and extends from the Warm Creek Channel on the west (terminus) and on the east intercepts the City Creek Channel just north of the State Route 30 (SR-210) and 5th Street Interchange. Refer to aerial photo in Figure 3-8 for a depiction of the Bypass Channel alignment. Additionally, the watershed area has existing storm drains that collect runoff from the watershed area located within Palm Avenue and Central Avenue. The existing storm drains collect surface runoff and convey the runoff into City Creek or City Creek Bypass.

Coordination with local agencies has resulted in the identification of a proposed storm drain system that is located within Victoria Avenue. The storm drain system is currently under a Plan, Specification, and Estimate (PS&E) process with the City of Highland. The intent of the PS&E process is to develop a package that obtains CEQA clearances, design approvals, and a construction estimate to allow the project to be constructed.

The study describes the existing channel and concludes that downstream of the Victoria Avenue, City Creek Bypass Channel is insufficient to convey the 100-year flood flows in its current configuration. The study includes a new channel design (two alternatives) that will need to be installed to have sufficient capacity to convey the 100-year flood flows between Victoria Avenue (just north of the Airport and south of 3rd Street) and the Warm Creek Channel. Figure 3-9 shows the alternative channel designs and acknowledges that these designs are preliminary, not approved, and not ready for construction. The channel alternatives are defined in detail in the study. For planning and impact forecast purposes it is assumed that a maximum of one-half mile of new channel will be installed in any given year. Moreover, Figure 3-8 has identified the storm drain infrastructure that will be required to provide flood protection for the surrounding AGSP Planning Area based on the CSDP #6. The purpose of the storm drain infrastructure is to provide flood protection and to meet the street design policies within the City of San Bernardino and the

City of Highland. The following CSDP #6 system components that protect the project area are as follows:

- 6-C1-01 which is a storm drain system that varies in diameter from 36-inches to 48-inches in diameter. The system extends along Tippecanoe Avenue to 5th Street.
- 6-C1-03 which is a storm drain that varies in diameter from 42-inches to 81-inches in diameter. The storm drain extends to Sterling Avenue and 6th Street.

It should be noted that 6-WA-03, located within 6th Street, is adjacent to the northerly boundary of the Specific Plan Area. Based on the topographic contours for the watershed area, the runoff flows to the west towards Warm Creek. The Specific Plan Area will not require this system to ensure flood protection since 6th Street collects and conveys the runoff to Warm Creek Channel.

Finally, it should be noted that the CSDP #6 is a conceptual design that identifies regional infrastructure required within an area. The conceptual design provides a potential solution that would provide flood protection for an area and where the runoff from the watershed area needs to be directed. During final engineering, the solution provided by the CSDP #6 may not be viable due to constraints associated with utilities, right-of-way, topography or other unknown constraints. As a result, future projects may provide an alternative solution that meets the intent of the CSDP #6 design concept with concurrence of each City's engineer.

4.20.3.4 Electricity

Electricity for the AGSP Planning Area is currently being served by Southern California Edison (SCE). SCE's power plants are capable of supplying 100 percent of the City of Highland, City of San Bernardino and unincorporated areas of San Bernardino County electricity needs.

Because the AGSP Planning Area is linked to the state power grid, the City of Highland, City of San Bernardino and unincorporated areas of the San Bernardino County had its share of power interruptions during the peak energy crisis in 2001. Under an agreement with the California Independent System Operator (Cal ISO), SCE must reduce its load if instructed to do so by the ISO during a Stage III power emergency. Such an emergency occurred most recently in March 2001, requiring SCE to temporarily interrupt electric service to some of its customers. Buildout of the AGSP Planning Area is not forecast to have a significant impact on availability of energy resources in the City of Highland, City of San Bernardino and unincorporated areas of the San Bernardino County.

4.20.3.5 Natural Gas

Natural gas for the AGSP Planning Area is currently being served by the Southern California Gas Company (SoCal Gas). SoCal Gas has a number of underground pipelines in the AGSP Planning Area including:

- An 8-inch pipeline located in 6th Street traverses east the length from Tippecanoe Street to Victoria Avenue.
- A 3-inch pipeline located in 6th Street traverses east the length from Cunningham to Central Avenue.
- A 2-inch pipeline located in 5th Street traverses east the length from Tippecanoe Street to Roberts.
- A 2-inch pipeline located in 5th Street traverses east the length from Victoria Avenue to 500 feet from Central Avenue.

- A 2-inch pipeline located in 5th Street traverses east the length from Central Avenue to Palm Avenue.
- A 4-inch pipeline located in 5th Street traverses east from Church Avenue to Route 210.
- A 2-inch pipeline located in 4th Street traverses east the length from Tippecanoe Street to the termination of 4th Street.
- A 2-inch pipeline located in 3rd Street traverses the length from Tippecanoe Street to Sterling Street.
- An 8-inch pipeline located in 3rd Street traverses east the length from Victoria Avenue to Alabama Street.
- A 6-inch pipeline located in 3rd Street traverses east the length from Alabama Street/Palm Avenue to Church Avenue/5th Street intersection.

4.20.3.6 Telecommunication

Cable TV / Internet

Time Warner has above and underground utilities in 6th Street from Tippecanoe Street to Sterling Avenue as well as above ground utilities in 5th Street from Tippecanoe Street to residences located between Del Rosa Drive and Sterling Avenue. Time Warner has above ground utilities in 6th Street from Lankershim Avenue to Central Avenue. MCI (Verizon) and Terradex have no above or underground utilities in the AGSP Planning Area.

Telephone / Internet

AT&T has above ground utilities (via cables) and underground utilities within conduits within the AGSP Planning Area located in 3rd Street, 5th Street and 6th Street. Both above ground and underground utilities are located in 6th Street from Tippecanoe Street to Victoria Avenue as well as conduit located in 5th Street starting at Victoria Avenue traversing east terminating before Cunningham. Conduit is located within Central Avenue and Palm Avenue from 6th Street to 4th Street. Conduit and underground utilities are located in 5th Street from Church Avenue to Route 210. Conduit is located in 3rd Street starting at Victoria Avenue and terminates at Palm Avenue.

Dry utility services throughout the AGSP Planning Area will be provided through the existing backbone systems. Dry utilities are generally constructed in a common trench within the street right-of-way or an adjacent easement. The final layout and design of the AGSP Planning Area will need to accommodate the linear dry utilities, as well as ancillary features such as junction boxes, transformers, etc.

4.20.3.7 Solid Waste

The City of San Bernardino Department of Public Works, Street Maintenance and Integrated Waste Management Division (Division) has contracted with Burrtec Waste Industries (Burrtec) to be responsible for solid waste collection and disposal. The City of Highland has also contracted with Burrtec. The contractors from both the Division and the City of Highland are responsible for the solid waste collection and disposal from all residential properties within each respective City within the AGSP Planning Area and competes with private haulers for commercial collection services. The Division and City of Highland also manage a curbside recycling program, which includes collection of paper and cardboard, cans/aluminum, plastic, and glass. The recyclable materials are taken to number of recycling facilities that are contracted with the Division, City of Highland and unincorporated areas of the County.

For existing and new development within the AGSP Planning Area, the Division, City of Highland and unincorporated areas of the County via the San Bernardino County Waste System Division will continue to push solid waste and recycling efforts to move toward minimizing waste sent to landfills and reducing solid waste disposed per capita, as identified in their respective Action Plans/Ordinances. This includes expanding public outreach programs that focus on recycling and composting education.

The San Timoteo Sanitary Landfill and Mid-Valley Sanitary Landfill serve the AGSP Planning Area.

- The San Timoteo Sanitary Landfill has a maximum permitted daily capacity of 2,000 tons per day, with a permitted capacity of 20,400,000 cubic yards (CY), with 11,402,000 CY of capacity remaining.
- The Mid-Valley Sanitary Landfill has a maximum permitted daily capacity of 7,500 tons per day, with a permitted capacity of 101,300,000 CY, with 67,520,000 CY of capacity remaining.

4.20.4 Thresholds of Significance

As stated in the preceding section, the standard issues related to population and housing resources identified in the Standard Environmental Checklist Form provided in Appendix G of the State CEQA Guidelines are analyzed in this DEIR. Accordingly, utilities impacts resulting from the implementation of the proposed AGSP may be considered significant if they would result in the following:

- UTIL-1 Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?
- UTIL-2 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
- UTIL-3 Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
- UTIL-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?
- UTIL-5 Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Based on these significance thresholds and criteria, the proposed AGSP's effects have been categorized as either "no impact," a "less than significant impact," or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts where feasible. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable adverse environmental impact.

4.20.5 Methodology

The preparation of this subchapter relied on several different methods. Specific investigation of utility services was reviewed by a civil engineer that supplied the above information, except for the hydrology/drainage data. The information for the drainage system was also provided by a civil engineer with a specialization in evaluation and design of drainage systems. Finally, the literature prepared by the agencies themselves regarding water, wastewater, energy utilities, communication services, and solid waste were used to evaluate the current status and future capacity of the various utility systems.

4.20.6 Potential Impacts

UTIL-1 Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Water

Within the AGSP Planning Area, East Valley Water District (EVWD) provides potable water service. The AGSP Planning Area is served by existing transmission systems as described above under 4.20.3.2 Water. Based on the 2019 EVWD's 2019 Water Supply Master Plan (WSMP) Build-Out Water System Improvements outlined in Chapter 8, there are no transmission pipeline recommendations applicable to the provision of water service to the AGSP Planning Area. However, based on the 2019 WSMP build-out evaluation, there are two water system improvements within the AGSP Planning Area as follows:

- **Project 1** - 3.5 MG storage reservoir located in the Lower Zone;
- **Project 2** - New Well 01 in the Intermediate Zone.

These recommended improvements to the existing EVWD system will need to be installed to enhance the existing robust distribution system to meet modern industry standards, including fire flow. As such, the proposed project would 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

EVWD would be in charge of selecting the future reservoir and well sites to support the AGSP water system. Historically, EVWD has been successful with installation of new reservoir(s) and well(s) without causing unavoidable significant adverse environmental impacts. However, since the locations for such facilities is currently unknown, a potential for significant impact from installing such facilities does exist. EVWD must perform its own CEQA evaluation once the reservoir and well sites have been selected. In the interim, the AGSP proponents cannot enforce mitigation for reservoir and well sites to ensure avoidance of sensitive biological or cultural resources. Thus, for the purpose of this DEIR, a finding of potentially significant unavoidable impact is appropriate.

In regards to recycled water, the SNRC will produce Title 22 recycled water but it will not be a source to serve the AGSP Planning Area since all of the recycled water produced at the SNRC is scheduled to support groundwater recharge. In order to ensure that the AGSP Planning Area is designed to utilize all available natural resources in a sustainable manner, all non-potable water uses shall be designed to accommodate and utilize recycled water if it should become available

in the future. The City Engineers of the two cities shall have the authority but shall not be required to waive the requirement if they deem such a design requirement is infeasible. This will be enforced through mitigation measure (MM) **UTIL-1** provided below.

Wastewater

Within the AGSP Planning Area, EVWD provides wastewater collection services. EVWD Sewer System Master Plan (SSMP) was updated in early 2019. The AGSP Planning Area is served by existing collection systems as described above under 4.20.3.1 Wastewater. Within the SSMP, a comprehensive 20-year Capital Improvement Plan (CIP) was developed that recommends both capacity- and condition-related capital projects and recommendations on further studies. Figure 3-7 outlines the Recommended Capacity Projects addressed in the 2019 EVWD Sewer Master Plan and Chapter 6 of the SSMP describes how the new interceptor sewer that will direct flows to the SNRC will relieve flows from the pipelines associated with the projects outlined under Chapter 7 of the SSMP. As such, the existing wastewater transmission system, as well as the previously analyzed and planned for transmission system associated with the development of the SNRC, for which development is underway and nearing completion, are anticipated to have adequate capacities to accommodate development associated with the AGSP. Given that the proposed AGSP will not require or result in the relocation or construction of new or expanded wastewater facilities, no significant impacts thereof are anticipated.

Stormwater

The AGSP Planning Area is served by existing stormwater runoff collection systems as described above under 4.20.3.3 Stormwater. These systems may underperform as the intensity of the development within the AGSP Planning Area and surrounding area increases. Coordination with local agencies has resulted in the identification of a proposed storm drain system that is located within Victoria Avenue. The storm drain system is currently under a Plan, Specification, and Estimate (PS&E) process with the City of Highland. The intent of the PS&E process is to develop a package that obtains CEQA clearances, design approvals and construction estimate to allow the project to be constructed.

The study concludes that, downstream of the Victoria Avenue-City Creek Bypass Channel, it is insufficient to convey the 100-year flood flows in its current configuration. The study includes a new channel design (two alternatives) that will need to be installed to have sufficient capacity to convey the 100-year flood flows between Victoria Avenue (just north of the Airport and south of 3rd Street) and the Warm Creek Channel, located just east of Waterman Avenue. Figure 3-9 show the alternative channel designs and acknowledges that these designs are preliminary and not ready for construction. The channel alternatives are defined in detail in the study. For planning and impact forecast purposes it is assumed that a maximum of one-half mile of new channel will be installed in any given year. Moreover, Figure 3-8 has identified the storm drain infrastructure that will be required to provide flood protection for the surrounding AGSP Planning Area based on the Comprehensive Storm Drain Plan #6 (CSDP #6). The purpose of the storm drain infrastructure is to provide flood protection and to meet the street design policies within the City of San Bernardino and the City of Highland. The following CSDP #6 system that protects the AGSP Planning Area are as follows:

- 6-C1-01 which is a storm drain system that varies in diameter from 36-inches to 48-inches in diameter. The system extends along Tippecanoe Avenue to 5th Street.
- 6-C1-03 which is a storm drain that varies in diameter from 42-inches to 81-inches in diameter. The storm drain extends Sterling Avenue and 6th Street.

Finally, CSDP #6 is a conceptual design that identifies regional infrastructure required within an area. The conceptual design provides a potential solution that would provide flood protection for an area and where the runoff from the watershed area needs to be directed. During final engineering, the solution provided by the CSDP #6 may not be viable due to constraints associated with utilities, right-of-way, topography or other unknown variables. As a result, future projects may provide an alternative solution that meets the intent of the CSDP #6 design concept and is acceptable to each City Engineer.

Based on the discussion above, additional/expanded stormwater collection is necessary to develop the AGSP as envisioned in the Project Description. In addition, as individual development projects occur within the AGSP, they will be required to meet current WQMP design and Low Impact Development (LID) requirements. This will minimize increases in runoff due to new impervious surfaces associated with future development. Further, as part of the AGSP, the cultural and biological resource studies included the City Creek Bypass Channel west of Sterling to the channel's confluence with Warm Creek. The development of the new channel is anticipated to occur gradually, which would lessen impacts; however, the overall development associated with the proposed AGSP is forecast to cause significant adverse impacts under several issues, including Air Quality and Greenhouse Gas. As such, the proposed project would require or result in the relocation or construction of new or expanded stormwater facilities, the construction or relocation of which would cause significant environmental effects.

Electricity

Within the AGSP Planning Area, SCE is the electricity provider. The AGSP Planning Area is served by the existing electrical grid as described above under 4.20.3.4 Electricity. Because the AGSP Planning Area is linked to the state power grid, the City of Highland, City of San Bernardino and unincorporated areas of the San Bernardino County had its share of power interruptions during the peak energy crisis in 2001. Under an agreement with the California Independent System Operator (ISO), SCE must reduce its load if instructed to do so by the ISO during a Stage III power emergency. Such an emergency occurred most recently in March 2001, requiring SCE to temporarily interrupt electric service to some of its customers. Buildout of the AGSP Planning Area will not have a significant impact on availability of energy resources in the City of Highland, City of San Bernardino and unincorporated areas of the San Bernardino County. This is based on the ability of SCE to expand its generation capacity incrementally as the AGSP develops. Should energy supply fall behind demand in the AGSP project area, future environmental documents will identify inadequate electricity capacity as a significant impact and each City can hold development until adequate capacity is available in the electricity supply system. This shall be ensured through the implementation of MM **UTIL-2**, which would ensure that future development under the AGSP secures a will-serve notice for electricity service from Edison prior to approval of the proposed project. As such, while individual projects may require extension of electrical service to a given site within the AGSP Planning Area, the whole of the AGSP is forecast to be served by comprehensive existing electrical systems. Note that as part of future development, electric distribution lines will be placed underground to meet system expansion. Therefore, with the implementation of MM **UTIL-2**, the proposed project would have a less than significant potential to require or result in the relocation or construction of new or expanded electrical facilities, the construction or relocation of which is not forecast to cause significant environmental effects.

Natural Gas

Natural gas for the AGSP Planning Area is currently being served by the Southern California Gas Company (SoCal Gas). SoCal Gas has a number of underground pipelines in the AGSP Planning Area that currently deliver natural gas to customers in the AGSP project area. Given the availability of natural gas within the Planning Area, while individual projects may require extension of natural gas services to a given site within the AGSP Planning Area, the whole of the AGSP is served by existing natural gas pipelines; therefore, the proposed project would have a less than significant potential to require or result in the relocation or construction of new or expanded natural gas facilities, the construction or relocation of which could cause significant environmental effects.

Telecommunication

Time Warner has above and underground utilities in 6th Street from Tippecanoe Street to Sterling Avenue as well as above ground utilities in 5th Street from Tippecanoe Street to residences located between Del Rosa Drive and Sterling Avenue. Time Warner has above ground utilities in 6th Street from Lankershim Avenue to Central Avenue.

AT&T has above ground utilities (via cables) and underground utilities within conduits within the AGSP Planning Area located in 3rd Street, 5th Street and 6th Street. Both aboveground and underground utilities are located in 6th Street from Tippecanoe Street to Victoria Avenue as well as conduit located in 5th Street starting at Victoria Avenue traversing east terminating before Cunningham. Conduit is located within Central Avenue and Palm Street from 6th Street to 4th Street. Conduit and underground utilities are located in 5th Street from Church Avenue to Route 210. Conduit is located in 3rd Street starting at Victoria Avenue and terminates at Palm Avenue.

Conclusion

Dry utility services throughout the AGSP Planning Area will be provided through the existing backbone system. Dry utilities are generally constructed in a common trench within the street right-of-way or an adjacent easement. The final layout and design of the AGSP Planning Area will need to accommodate the linear dry utilities as well as ancillary features such as junction boxes, transformers, etc. Given the above, the proposed project would have a less than significant potential to require or result in the relocation or construction of new or expanded telecommunication facilities, the construction or relocation of which could cause significant environmental effects.

Development of the AGSP would create additional demand for water. Should recycled water become available in the Planning Area, the future development would benefit from direct utilization of recycled water so as to minimize demand on potable water supply. As such, mitigation measure (MM) **UTIL-1** is required to ensure that, where feasible, recycled water pipelines are installed concurrent with construction of new development under the AGSP.

UTIL-1: Developers of projects under the AGSP shall install recycled water pipelines concurrent with construction of each individual Project. Based upon review of the Project by the City Engineer, the Engineer may waive the requirement that a recycled water line be installed. Such a waiver must be based upon substantial data supplied by the project applicant to justify waiving the requirement that installation of recycled water lines shall accompany future development that could utilize recycled water.

Mitigation is required to ensure that future development under the AGSP secures a will-serve notice for electricity service from Edison prior to commencement of operation of the proposed project.

UTIL-2: Developers of projects under the AGSP shall, be required to furnish will-serve letters from SoCal Edison to the City within which a given project is proposed prior to approval of the project by the City within which the development is planned.

Mitigation may also be required to improve the electrical systems within the AGSP Planning Area, as the standard for construction of new facilities is to underground utilities in the vicinity of a given project site.

UTIL-3: Developers of projects under the AGSP shall, at a minimum, be required to place electrical distribution lines adjacent to a given project site underground per City regulations.

As stated above, EVWD would be in charge of selecting the future reservoir and well sites to support the AGSP water system. Since the locations for such facilities is currently unknown, a potential for significant impact from installing such facilities does exist. EVWD must perform its own CEQA evaluation once the reservoir and well sites have been selected. Mitigation measure **UTIL-4** would ensure that the Cities of San Bernardino and Highland as well as IVDA support EVWD in their selection for new reservoir and well sites within the project area.

UTIL-4: The Cities of San Bernardino and Highland, as well as IVDA, shall support EVWD's selection of new reservoir and well sites within the AGSP Planning Area with a goal of minimizing site-specific impacts.

Level of Significance: Significant and Unavoidable

With MMs **UTIL-1** through **UTIL-4**, the potential for development of the AGSP to result in significant unavoidable impacts related to requiring or resulting in the relocation or construction of new or expanded water, wastewater, stormwater, electric power, or natural gas facilities would be minimized to the greatest extent feasible. However, while MM **UTIL-4** would require the two cities and the IVDA to assist/support the EVWD with selection of reservoir and well sites that minimize significant adverse impacts, the ultimate locations of these facilities cannot be determined at this time. As such, it is possible that implementation of these facilities may cause such impacts. Furthermore, given that the whole of the AGSP would result in significant impacts, including significant construction and operational air quality and greenhouse gas impacts, development under the AGSP would result in a significant and unavoidable potential to require or result in the relocation or construction of new or expanded stormwater infrastructure, the construction of which would cause a significant impact. Thus, the finding is that a significant unavoidable adverse impact may result from installing the additional infrastructure required to support to the AGSP Planning Area.

UTIL-2 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The AGSP Planning Area is served by EVWD. The existing population within the AGSP Planning Area is estimated to be about 2,471 persons, which would generally demand about 175 gallons per capita per day (gpcd), as detailed in EVWD's 2019 WSMP. As such it would be anticipate that the population within the AGSP Planning Area currently demands about 449,925 gallons per day

(gpd) or 0.45 million gallons per day (MGD). However, because the AGSP contains commercial, industrial, and other residential uses, EVWD’s calculated water duty factors, which depict the water demand per acre for a specific land use type, may depict a more accurate picture of the water demanded by the existing uses located within the AGSP Planning Area. The EVWD WSMP indicates that the water duty factors for various uses within their service area are as follows based on data from 2015-2017:

**Table 4.20-1
 CALCULATED WATER DUTY FACTORS**

	Consumption 2015-2017 (acre feet)	Current land use (acres)	2015-2017 factor
Agricultural	7,183	536	1,000
Commercial	969,571	481	2,000
Industrial	101,631	154	800
Multi-Family Residential	2,105,543	618	3,500
Open Land	158,604	1,558	1,000
Parks	411,592	212	3,000
Public	1,216,046	825	3,000
Single-Family Residential	9,521,113	5,004	2,000
Vacant	167,481	7,490	0

Notes: Source, Table 3-13 Calculated Water Duty Factors, Page 3.17, 2019 EVWD WSMP

Utilizing the estimated acreage for existing land uses organized by use, not by land use designation as there are many non-conforming uses within the AGSP Planning Area, the existing estimated water demand within the AGSP Planning Area is outlined below in Table 4.20-2.

**Table 4.20-2
 AGSP PLANNING AREA EXISTING USE WATER DEMAND¹**

Land Use²	Existing Land Use (acres)	2015-2017 Factor	Total Water Demand AGSP (gpd)
Commercial	20.74	2,000	41,480
Industrial	70.08	800	56,640
Multi-Family Residential	36.35	3,500	127,225
Public Facilities	10.14	3,000	30,420
Single-Family Residential (occupied)	87.8	2,000	175,600
		TOTAL:	431,365

¹Land uses are based on actual use, not underlying land use designation

²Excludes Vacant Land within each land use category

Comparatively, utilizing the estimated proposed mix of land uses within the AGSP Planning Area—15% industrial distribution/logistics (large scale), 70% general/light industrial and logistics (small scale), 13% tech business park, and 2% commercial/retail/service uses—the water demand for the proposed uses within the AGSP were calculated and would result in the following estimated water demand:

**Table 4.20-3
 AGSP PLANNING AREA ANTICIPATED FUTURE WATER DEMAND**

	AGSP Proposed Land Use Mix ¹	2015-2017 Factor	Total Water Demand AGSP (gpd)
Commercial	9.198	2,000	18,396
Industrial	450.702	800	360,561.6
		TOTAL:	378,957.6

The above tables demonstrate that the existing uses located within the AGSP Planning Area currently demand more water from EVWD than would the uses proposed as part of the AGSP with the existing uses demanding 431,365 gpd, and future uses anticipated to demand 378,957.6 gpd, a difference of 52,407.4 gpd. This would indicate that EVWD would have adequate capacity to supply the project area, given that build-out of the AGSP Planning Area is forecast to result in a net decrease of water demanded within their service area. However, as discussed under Chapter 4.15, Population and Housing, the population that presently resides within the AGSP Planning Area will eventually require relocation, as such, that population and subsequent water demand does not disappear as a result of the land use changes proposed as part of the AGSP. It is not possible to quantify what portion of the existing population within the AGSP would relocate to a residence located within EVWD’s service area, as it is just as possible that the population could relocate to a residence located within San Bernardino Municipal Water District (SBMWD) or another water service provider within the southern California region. Furthermore, the demand for the uses proposed as part of the AGSP are not unique to the project location, and would be developed within the southern California region regardless of the locale within which development of this type is proposed. As such, while implementation of the proposed AGSP would likely reduce demand for water from EVWD within this specific area, overall demand within EVWD’s service area is anticipated to remain consistent with both the existing demand from the AGSP Planning Area, and the demand anticipated by EVWD’s planning documents, including the 2019 WSMP, and the 2015 San Bernardino Valley Regional Urban Water Management Plan (UWMP). This is particularly true given that EVWD’s population is projected to grow from 124,062 in 2020 to 146,945 by 2040—thus accommodating any indirect increase in demand from any portion of the relocated population—and EVWD’s UWMP indicates that sufficient supply is anticipated to be available to meet demand.

Thus, given the above, EVWD, which will serve future uses developed as part of the AGSP, would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years, and the overall southern California region’s water supply will not be adversely affected by the relocation of uses within the AGSP, particularly given the 20-year horizon within which the AGSP will be implemented would prevent a surge of relocation efforts from occurring in any given year.

Mitigation Measures: None Required

Level of Significance: Less Than Significant Impact

UTIL-3 Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The AGSP Planning Area receives wastewater collection service from EVWD. EVWD's sewer pipeline network includes approximately 213 miles of pipeline ranging in size from 4 inches to 24 inches in diameter, and EVWD's sewer system includes 4,500 sewer manholes, 7 siphons, and 5 diversion structures. The existing sewer system conveys flows into the East Trunk Sewer which presently discharge to the San Bernardino Water Reclamation Plant (SBWRP) until the SNRC is completed. Capable of treating up to 10 million gallons a day, the SNRC's reclaimed water is intended to be used to recharge the local Bunker Hill Groundwater Basin.¹ Construction on the SNRC began in 2018 and is scheduled to be completed in the near future. According to the 2019 EVWD Sewer System Management Plan (SSMP), the existing wastewater transmission system, as well as the previously analyzed and planned for transmission system associated with the development of the SNRC, for which development is currently underway, is anticipated to have appropriate capacities to accommodate development associated with the AGSP. Given that the SNRC would be developed and ready to accept sewer flow from EVWD's service area, the development proposed as part of the AGSP, which is anticipated to occur over a 20-year planning horizon, would be served by a wastewater treatment provider with adequate capacity to serve the project.

Mitigation Measures: None Required

Level of Significance: Less Than Significant Impact

UTIL-4 Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

and

UTIL-5 Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Construction Waste

Development of the AGSP would involve construction waste from demolition of existing facilities as development associated with the AGSP replaces the existing uses within the Planning Area. Construction waste would include building materials, including removal of asphalt, concrete, wood, plaster, and similar materials. It is assumed that a conservative estimate of the total existing structures that would be demolished in support of future AGSP development is about 1 million SF. This assumes that some existing uses, such as existing industrial and commercial uses, will remain in place. Given that the AGSP is anticipated to be implemented over a 20-year horizon, it is anticipated that a conservative estimate of the amount of construction and demolition waste that would be generated in a given year would be about 100,000 SF, assumed to be equal to about 13,500 CY. As such, it is assumed that about 900 15-yard dumpsters or about 338 40-yard dumpsters would be required in a given year in support of the construction and demolition efforts anticipated to be required to develop the AGSP.

According to the 2018 Facility-Based Waste Characterization of Solid Waste in California², referenced on the California Department of Resources Recycling and Recovery (CalRecycle) website, inert materials and others made up 36% of California's self-hauled waste stream. The

¹ <https://www.eastvalley.org/281/Sterling-Natural-Resource-Center>

² <https://www2.calrecycle.ca.gov/Publications/Details/1666>

prevalent material types in overall self-hauled disposal waste were nearly all construction related materials, equaling 56.3% of the total, or 8,120,720 estimated tons. The prevalent material types include Remainder/Composite/Inerts and others, Wood and Wood Waste, Rock, Solid and Fines, Asphalt Roofing, Gypsum Board, Concrete, and Prunings and Trimmings. Many of these materials can be reused or recycled, thus prolonging our supply of natural resources and potentially saving money in the process.

In accordance with CALGreen code 5.408.4, 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing must be reused or recycled. As this is a mandatory requirement, no mitigation is required to ensure compliance by future demolition activities for this Program.

Based on the fact that demolition is required to develop many areas of the AGSP, construction waste and demolition material reduction/diversion would be the focus of recycling/reuse. Because of increased construction recycling efforts resulting from CalGreen and other regulations, opportunities for construction recycling are becoming easier to find. According to the San Bernardino County Construction & Demolition Waste Recycling Guide & Directory³, there are several facilities in the vicinity of the AGSP that accept C&D waste (appliances, asphalt, block rock, brick, cardboard, carpet and padding, concrete, concrete with rebar, dry wall, electrical, furniture, gravel, metals, mixed loads, organics, plumbing, rock, roof tile, sand, soil, stucco, tile, and wood). The Agua Mansa MRF in Riverside, CA (about 12 miles southwest of the AGSP Planning Area) accepts appliances, asphalt, brick, cardboard, concrete, concrete with rebar, metals, mixed loads, rock, roof tile, and wood, while the West Valley MRF in Fontana, CA (about 15 miles west of the AGSP Planning Area) accepts appliances, asphalt, brick, cardboard, concrete, concrete with rebar, metals, mixed loads, rock, roof tile, and wood. There are several other facilities located within a 10- to 15-mile radius of the AGSP Planning Area, accepting a variety of materials (refer to the list of facilities provided within the San Bernardino County Construction & Demolition Waste Recycling Guide & Directory).

The San Timoteo Sanitary Landfill (located in Redlands about 10 miles south of the AGSP Planning Area) and Mid-Valley Sanitary Landfill (located in Rialto about 13 miles northwest of the AGSP Planning Area) serve the area. The San Timoteo Sanitary Landfill has a maximum permitted daily capacity of 2,000 tons per day, with a permitted capacity of 23,685,785 CY, with 12,360,396 CY of capacity remaining.⁴ The Mid-Valley Sanitary Landfill has a maximum permitted daily capacity of 7,500 tons per day, with a permitted capacity of 101,300,000 CY, with 61,219,377 CY of capacity remaining.⁵ According to Jurisdiction Landfill Tonnage Reports from the City of San Bernardino, 183,077 total tons of solid waste was hauled to area landfills in 2017.

Both landfills permit thousands of tons of waste per day, which is beyond what the expected amount of waste that would be generated by the proposed AGSP over the 20-year horizon within which the Planning Area will be developed and re-developed. The facilities that accept C&D materials, combined with the landfills in the surrounding area, have adequate capacity to serve the proposed construction of the proposed AGSP. Further, these landfills have adequate permitted remaining capacity of 62,455,773 CY. Public Resources Code 41780 requires every city and county to divert from landfills at least 50% of the waste generated within their jurisdiction.

³ http://cms.sbcounty.gov/portals/50/solidwaste/CandD_Recycling_Guide.pdf

⁴ <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1906?siteID=2688>

⁵ <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1880?siteID=2662>

Additionally, as the AGSP would be implemented after 2022, operation of the future development under the AGSP would be required to comply with SB1383, otherwise known as “California’s Short-Lived Climate Pollutant Reduction” law, often called SB 1383, which establishes methane reduction targets for California. California SB 1383 sets goals to reduce disposal of organic waste in landfills, including edible food.⁶ The bill’s purpose is to reduce greenhouse gas emissions, such as methane, and address food insecurity in California. This requires jurisdictions to implement mandatory organic waste collection and recycling in a statewide effort to divert organic waste from landfills with goals to:

- Reduce organic waste disposal 50% by 2020 and 75% by 2025
- Recover at least 20% of currently disposed surplus edible food by 2025

As such, over the planning horizon, the AGSP may generate organic waste, and much of the organic waste produced by future development under the AGSP in future will be required to be diverted from landfills, and as such, the amount of waste generated by development under the AGSP that would end up in landfills is even further.

Because future construction developed under the AGSP will be regulated by waste reduction and diversion from landfill programs, the construction of the AGSP, particularly given that development will occur gradually over a 20-year horizon, would not result in a substantial increase in demand in excess of capacity for local solid waste disposal facilities and regional landfill capacity. However, to further reduce potential impacts to solid waste facilities due to the large scale of the materials that may require disposal or recycling, mitigation will be implemented to ensure that C&D materials that are capable of recycling are recycled.

Operational Waste

Operation of the AGSP includes an anticipated mix of uses as follows:

Use Type	Waste Generation Rate ⁷	Waste Generated by AGSP Operations
Industrial Distribution/Logistics (Large Scale), 1,368,673.65 SF	0.006 pound per square foot per day	8,212.04 pounds of waste per day
General/Light Industrial & Logistics (Small Scale), 6,387,143.7 SF	0.006 pound per square foot per day	38,322.86 pounds of waste per day
Tech Business Park, 1,186,183.83 SF	0.006 pound per square foot per day	7,117.10 pounds of waste per day
Commercial/Retail Services, 182,489.82 SF	5 pounds per 1000 SF per day	912.45 pounds of waste per day
Hotel, 75,000 SF or 150 Rooms	2 pounds per room per day	300 pounds of waste per day
Total: 9,124,491 SF		Total Waste Generated per day: 54,864.45 pounds

As outlined above, the AGSP would generate about 54,864.45 pounds of waste per day, equal to 27.43 tons per day or about 10,011.95 tons per year at build out, anticipated to occur in the early 2040s. The Cities of Highland and San Bernardino require diversion of at least 50% of the waste generated by a development to be recycled. Therefore, with at least 50% diversion, the project would generate up to 13.72 tons of waste per day that would be sent to nearby landfills, while at least 13.72 tons would be required to be recycled. Given that the San Timoteo and Mid Valley

⁶ <https://reducewaste.sccgov.org/food-recovery/understand-senate-bill-sb-1383#3925188384-318395615>

⁷ <https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates#Commercial>

landfills can receive a combined 9,500 tons per day, the 13.72 tons generated per day by build-out of the AGSP would correspond to approximately 0.14% of the combined maximum daily permitted intake capacities of both landfills. According to CalRecycle, these landfills typically receive below the maximum permitted daily disposal volume; thus, solid waste generated by the project would not cause nearby landfills to exceed maximum daily permitted disposal volumes.

Compliance with Statutes and Regulations

The proposed AGSP would comply with all City of Highland, City of San Bernardino, and County construction requirements during construction of the proposed AGSP as described above in the regulatory setting, including the Cities' waste reduction programs, recycling and other diversion programs to reduce the amount of solid waste deposited in landfills. Future developers proposing development under the AGSP would be required to collaborate with refuse haulers to develop and implement feasible waste reduction programs, including but not limited to recycling and composting.

Construction of future development under the AGSP may require soil excavation, and future developers would be required to be hauled offsite by truck to an appropriately permitted solid waste facility. During construction, the amount of soil to be disposed per day would not exceed the maximum permitted throughput for each waste type (i.e., non-hazardous and hazardous). It is estimated that 15 CY trucks will be utilized to transport waste off site. For planning purposes, future developers shall limit soil export hauling activities to 15 CY trucks, where feasible, and shall limit truck trips to 50 trucks per day with a maximum of 75 miles per trip. This will be enforced through mitigation provided below. Construction of the proposed project would comply with all federal, State, and local statutes related to solid waste disposal. Therefore, the proposed project would result in less than significant impacts related to construction.

The cities of Highland and San Bernardino in which the AGSP is located are required to comply with the California Integrated Waste Management Act of 1989, requiring diversion of solid waste from landfills through reuse and recycling. The project would be required to recycle during future development operations. Any hazardous materials collected on the project site during either construction or operation of future development within the AGSP will be transported and disposed of by a permitted and licensed hazardous materials service provider. Additionally, in accordance with the California Solid Waste Reuse and Recycling Act of 1991 (Cal Pub Res. Code § 42911), development under the AGSP would be required to provide adequate areas for collecting and loading recyclable materials where solid waste is collected. The collection areas are required to be shown on construction drawings and must be in place before occupancy permits are issued for future development within the AGSP. The implementation of these programs and compliance with waste reduction programs and policies would reduce the volume of solid waste entering landfills, which would aid in the extension of the life of affected landfill and other waste disposal sites. With the implementation of mitigation provided below, development under the AGSP would comply with all regulations related to solid waste under federal, state, and local statutes.

Mitigation Measures:

As stated above, the cities of Highland and San Bernardino require a 50% diversion of solid waste to be recycled. MM **UTIL-5** would ensure that future development within the AGSP recycled construction and demolition materials be recycled to the greatest extent feasible beyond the 50% diversion requirement. This will ensure that the solid waste delivered to local landfills is minimized and does not result in a significant potential for development under the AGSP to 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.

UTIL-5: *The contract with demolition and construction contractors for each future proposed development within the AGSP shall include the requirement that all materials that can feasibly be recycled shall be salvaged and recycled. This includes, but is not limited to, wood, metals, concrete, road base, asphalt, and demolition materials. The contractor shall submit a recycling plan to the local jurisdiction for review and approval prior to the start of demolition/construction activities to accomplish this objective.*

In order to minimize the amount of solid waste being hauled on a daily basis in support of individual AGSP, MM UTIL-6 below would ensure that local landfills and other facilities accepting construction and demolition waste, including soils, have adequate capacity on a daily basis to receive the materials generated by AGSP construction, thereby minimizing the potential for development under the AGSP to 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.

UTIL-6: *The contract with demolition and construction contractors for each future proposed development within the AGSP shall include the requirement that soil export, and other construction and demolition hauling activities utilize 15 CY trucks, except where it is infeasible (for example: materials cannot adequately be contained in 15 CY trucks due to bulky size and therefore require a larger size truck to accommodate such materials, etc.), and shall limit truck trips to 50 trucks per day with an average trip length of no greater than 75 miles per trip, roundtrip.*

Therefore, with implementation of the above mitigation measures, the development under the AGSP is expected to comply with all regulations related to solid waste under federal, state, and local statutes, and be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs. No further mitigation is necessary.

Level of Significance: Less Than Significant With Mitigation

4.20.7 Mitigation Measures

Five mitigation measures shall be implemented within the AGSP project area to impacts to the lowest achievable level for the five utility systems evaluated in this Subchapter. The measures include the following.

UTIL-1: *Developers of projects under the AGSP shall install recycled water pipelines concurrent with construction of each individual Project. Based upon review of the Project by the City Engineer, the Engineer may waive the requirement that a recycled water line be installed. Such a waiver must be based upon substantial data supplied by the project applicant to justify waiving the requirement that installation of recycled water lines shall accompany future development that could utilize recycled water.*

UTIL-2: *Developers of projects under the AGSP shall, be required to furnish will-serve letters from SoCal Edison to the City within which a given project is proposed prior to approval of the project by the City within which the development is planned.*

- UTIL-3:** *Developers of projects under the AGSP shall, at a minimum, be required to place electrical distribution lines adjacent to a given project site underground per City regulations.*
- UTIL-4:** *The Cities of San Bernardino and Highland, as well as IVDA, shall support EVWD's selection of new reservoir and well sites within the AGSP Planning Area with a goal of minimizing site-specific impacts.*
- UTIL-5:** *The contract with demolition and construction contractors for each future proposed development within the AGSP shall include the requirement that all materials that can feasibly be recycled shall be salvaged and recycled. This includes, but is not limited to, wood, metals, concrete, road base, asphalt, and demolition materials. The contractor shall submit a recycling plan to the local jurisdiction for review and approval prior to the start of demolition/construction activities to accomplish this objective.*
- UTIL-6:** *The contract with demolition and construction contractors for each future proposed development within the AGSP shall include the requirement that soil export, and other construction and demolition hauling activities utilize 15 CY trucks, except where it is infeasible (for example: materials cannot adequately be contained in 15 CY trucks due to bulky size and therefore require a larger size truck to accommodate such materials, etc.), and shall limit truck trips to 50 trucks per day with an average trip length of no greater than 75 miles per trip, roundtrip.*

4.20.8 Cumulative Impacts

Water

Development associated with the proposed AGSP would create additional demand on water services within EVWD's service area. The redevelopment anticipated to occur within the AGSP Planning Area could result in some additional water demands on EVWD and regional water providers as the population that exists at present within the AGSP Planning Area would be relocated and therefore would continue to demand water services. However, given the analysis and data provided herein and within EVWD and regional planning documents, the water demand by development under the AGSP would be well within planned demand and supply of water within the EVWD service area. Furthermore, the AGSP incorporates the development of the water related infrastructure identified and therefore required to serve future development proposed under the AGSP. As such, the development of the AGSP would accommodate cumulative development required to meet water demanded not only by future AGSP uses, but also other uses within EVWD's service area. However, development of wells and reservoirs required to support EVWD's service area may result in significant impacts as the ultimate locations of these facilities cannot be determined at this time. Therefore, because the AGSP would result in a significant and unavoidable impact related to expanded water supply resources, the project's contribution to cumulative impacts is considered cumulatively considerable, and therefore, would result in a significant cumulative impact.

Wastewater

Future cumulative development could exceed wastewater treatment requirements of the Santa Ana Regional Water Quality Control Board and result in potential significant cumulative impacts.

Given that the AGSP would be served with wastewater services by EVWD's SNRC, for which development is nearing completion, and that the SNRC is anticipated have appropriate capacities to accommodate development associated with the AGSP as well as future development within EVWD's service area, the project's contribution to cumulative wastewater capacity impacts is not considered cumulatively considerable, particularly given that capacity at the nearby San Bernardino Municipal Water Department's Water Reclamation Plant (WRP) would be freed up to accommodate cumulative development in the area. Therefore, implementation of the AGSP would result in a less than significant cumulative impact related to wastewater treatment capacities and compliance with the RWQCB.

Stormwater

Future cumulative development within the AGSP would result in the removal of pervious surfaces and in an increase in impervious surfaces. Increases in impervious surfaces would increase stormwater quantity. This increase could cumulatively affect drainage patterns as well as drainage volume and require the construction and operation of new and/or expanded stormwater drainage facilities. This cumulative need for the construction of new and/or expanded stormwater drainage facilities could result in significant environmental effects. Additional/expanded stormwater collection is necessary to develop the AGSP as envisioned in the Project Description. The development of the new City Creek Bypass channel would occur gradually, which would contribute to minimizing impacts on the stormwater system from cumulative development within the area that would generate runoff that would be received by the new stormwater collection system. However, given that the whole of the AGSP would result in significant impacts, including significant construction and operational air quality and greenhouse gas impacts, development under the AGSP would result in cumulative significant impacts from requiring or resulting in the relocation or construction of new or expanded stormwater facilities.

Electricity/Natural Gas

The AGSP would contribute to the cumulative use of energy including electricity and natural gas within the San Bernardino County area. The region is anticipating population growth and associated housing, commercial, and industrial developments, including those that would be developed under the AGSP, that would cumulatively increase the demand for energy. However, no new energy facilities would be required to be developed to serve the AGSP Planning Area, particularly given that the Planning Area is currently served by energy infrastructure at existing uses.

Telecommunications

Future cumulative development within the AGSP would require telecommunication facility connections. While it is anticipated that the dry utility services throughout the AGSP Planning Area will be provided through the existing backbone system, cumulative development may require additional telecommunication facilities to be developed over time. However, given that the whole of the AGSP Planning Area is anticipated to be served the existing facilities, any future expansion, relocation, or construction of telecommunication facilities is not anticipated to result in cumulatively considerable impacts thereof.

Solid Waste

Project impacts to landfill capacity from construction and demolition debris were found to be less than significant based on the information and analysis provided above. Mitigation addresses construction debris recycling and reuse to achieve a reduction in waste beyond the State requirement of a 50 percent reduction by weight. Implementation of this measure would reduce the construction waste from the proposed AGSP at a higher level than required by the State. Therefore, because the proposed AGSP will exceed those requirements with implementation of mitigation measures outlined above, the project increment of construction-related solid waste for cumulative projects in the area will be less than significant. Mitigation also would minimize the amount of waste that could be hauled per day by limiting the number and size of trucks that can be utilized by a given development proposed under the AGSP. Given that a majority of the construction and demolition materials generated by future AGSP development would be diverted away from landfills, the cumulative impact from AGSP development on landfill capacity in the context of the region's solid waste generation would be less than significant. Furthermore, compared to landfill capacity—the Mid Valley and San Timoteo landfills have a permitted remaining capacity of 62,455,773 CY—and available daily intake capacity at both landfills, the 13.72 tons generated per day by build-out of the AGSP would correspond to approximately 0.14% of the combined maximum daily permitted intake capacities of both landfills. As such, cumulative impacts to landfill capacity will be less than significant due to the project construction debris and operational waste generation representing a less than substantial cumulative increment with mitigation.

4.20.9 Unavoidable Adverse Impacts

The foregoing evaluation demonstrates that though the project would cause a less than significant mitigatable change or increase in generation of solid waste, demand for waste, wastewater, stormwater, electricity, natural gas, and telecommunication facilities within the area, this increase in generation of solid waste and demand for the referenced utilities would not cause an unavoidable significant impact to utilities through implementation of the AGSP. With two exceptions, utilities and service systems impacts are thus concluded to be less than significant. The exceptions are related to future siting of a new water reservoir and well required to meet future demand within the AGSP Planning Area, and construction of the stormwater infrastructure required to support the proposed development of the AGSP. The two cities and the IVDA can assist the EVWD with selection of well and reservoir sites that do not result in significant adverse impacts, but since the ultimate locations of these facilities cannot be determined at this time, it is possible that implementation of these future facilities may cause such impacts. Furthermore, given that the whole of the AGSP would result in significant stormwater system impacts, including significant construction and operational air quality and greenhouse gas impacts, development under the AGSP would result in a significant and unavoidable potential to require or result in the relocation or construction of new or expanded stormwater infrastructure, the construction of which could cause a significant impact. Thus, the finding is that a significant adverse utility system impact may result from installing the additional infrastructure required to support to the AGSP Planning Area.

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4.21 WILDFIRE

4.21.1 Introduction

This subchapter evaluates the environmental impacts related to wildfire hazards from implementation of the Airport Gateway Specific Plan (AGSP). The following topics address whether the proposed Project is located in or near state responsibility areas or lands classified as very high fire hazard severity zones, impair an adopted emergency plan, exacerbate the spread of a wildfire, require fire prevention infrastructure that may exacerbate the spread of wildfire, or expose people or structures to downstream flooding or landslides as a result of post-fire instability. The purpose of the wildfire component of this Draft Environmental Impact Report (DEIR) is to identify and provide analysis and assessment of the potential for wildfire hazards to exist within the AGSP Planning Area or the sensitivity for such a threat to be encountered at a future specific project site so that essential fire protection measures can be incorporated into the planning process for future infrastructure and entitlement compliance considerations.

These issues will be discussed below as set in the following framework:

- 4.21.1 Introduction
- 4.21.2 Regulatory Setting
- 4.21.3 Environmental Setting
- 4.21.4 Thresholds of Significance
- 4.21.5 Methodology
- 4.21.6 Project Impacts
- 4.21.7 Mitigation Measures
- 4.21.8 Cumulative Impacts
- 4.21.9 Unavoidable Adverse Impacts

References utilized for this section include:

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- City of Highland, January 2021. *General Plan Updated Public Health and Environmental Justice Element*.
- California Public Utilities Commission, *Fire Threat Map* as accessed May 9, 2020 at <https://ia.cpuc.ca.gov/firemap/>
- Placeworks, November 2018. *San Bernardino Countywide Plan, Safety Background Report*.
- CalFire, California Fire Hazard Severity Zone Viewer as accessed May 9, 2020 at <https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414>

No comments pertaining to wildfire threats were received in response to the Notice of Preparation or at the public Scoping Meeting.

4.21.2 Regulatory Setting

The wildfire resources component of this DEIR is prepared to address implementation of the AGSP if and when it is approved and implemented in the future. The location of potential projects range between well-defined to relatively uncertain at this time, but the various components will occur in existing commercial, industrial, and residential designated areas in the communities within the planning area, the cities of Highland and San Bernardino.

The impact assessment presented below focuses on physical changes to the landscape at a project site and any potential adverse impacts these changes may have on or due to any wildfire threats that exist within the project area or as a result of future site-specific projects. For purposes of the impact forecast, it is assumed that over the next 20 years the whole AGSP planning area will be implemented as proposed in this document and described in the Project Description of this document.

There are numerous State, federal and local regulations regarding wildfire planning, forest management, and wildfire responsibility. However, because the AGSP is not located in an area where wildfire hazards or urban-interface hazards have been mapped, nor have historically occurred, only those regulations that relate to urban fires are identified in this section.

State

California Fire Code

The California Fire Code (CFC) is a series of building, property, and lifeline codes outlined in Title 24, Chapter 9 in the California Code of Regulations. The CFC is based on the International Fire Code, which is a collection of best practices agreed upon by professional fire agencies and organizations. The CFC uses a hazards classification system to outline the measures to take to protect life and property. It also regulates hazardous materials at fixed facilities. The fire code, along with the building code, is updated every three years to incorporate recommendations by the International Code Council.

Senate Bill 1241 of 2012

Senate Bill (SB) 1241, enacted in 2012, amended the California Government Code Section 65302 to address wildfire safety in general plans. SB1241 requires that the general plan safety element updates address wildfire risk in State Responsibility Areas and Very High Fire Hazard Severity Zones in Local Responsibility Areas.

Fire Responsibility Areas

Cal Fire has designated three zones or responsibility areas, depending on the agency with primary financial responsibility for addressing the prevention, suppression, and postfire recovery of fire. These include local responsibility area (LRA), state responsibility area (SRA), and federal responsibility area (FRA), defined as follows:

- Local responsibility areas (LRAs) are the areas of California where local jurisdictions (e.g., city fire departments, fire protection districts, counties, and by CAL FIRE under contract to local government) are responsible for the prevention and suppression of wildfires.
- State Responsibility Areas (SRAs) are the areas of California where the State of California is financially responsible for the prevention and suppression of wildfires. SRA does not include lands within city boundaries or in federal ownership.
- Federal Responsibility Areas (FRAs) are the areas of California where the federal government has the primary financial responsibility for preventing and suppressing fires. These lands are generally protected by a variety of federal agencies.

Local

City of San Bernardino General Plan

The following General Plan policies addressing wildland and urban fire hazards are applicable to the project:

Safety: Goal 10.11

Protect people and property from urban and wildland fire hazards.

Safety Policy 10.11.1

Continue to conduct long-range fire safety planning efforts to minimize urban and wildland fires, including enforcement of stringent building, fire, subdivision and other Municipal Code standards, improved infrastructure, and mutual aid agreements with other public agencies and the private sector.

Safety Policy 10.11.2

Work with the U.S. Forest Service and private landowners to ensure that buildings are constructed, sites are developed, and vegetation and natural areas are managed to minimize wildfire risks in the foothill areas of the City.

Safety Policy 10.11.3

Require that development in the High Fire Hazard Area, as designated on the Fire Hazards Areas Map (Figure S-9) be subject to the provisions of the Hillside Management Overlay District (HMOD) and the Foothill Fire Zones Overlay.

Safety Policy 10.11.4

Study the potential acquisition of private lands for establishment of greenbelt buffers adjacent to existing development, where such buffers cannot be created by new subdivision.

Safety Policy 10.11.5

Continue to require that all new construction and the replacement of 50% and greater of the roofs of existing structures use fire retardant materials.

City of Highland General Plan

The following General Plan policies addressing wildland and urban fire hazards are applicable to the project:

Public Health, Safety, and Environmental Justice Element: Goal 3

Minimize risks, such as loss of life, injury, property damage, and natural resource destruction from natural and human-caused hazards.

Public Health, Safety, and Environmental Justice Element: Policy 3.3

Implement programs and standards to mitigate wildfire risk in high wildfire hazard severity zones.

Action 3.3a: New Development. All development shall be required to meet the minimum standards for adequate fire protection. The most restrictive law, regulation, or ordinance regarding fire safety applicable to development in Highland will take precedence, including compliance with the most current SRA Fire Safe Regulations and Fire Hazard Reduction Around Buildings and Structures Regulations if applicable. All perimeter development within the Very High Fire Hazard Severity Zone, adjacent to open space, shall construct perimeter fire roads in compliance with City policy.

Action 3.3b: New Residential Development in Areas Designated Very High Fire Hazard Severity Zone (VHFHSZ). Residential development within areas designated as VHFHSZs should be avoided or risks mitigated through compliance with applicable codes and standards, including compliance with the most current SRA Fire Safe Regulations and Fire Hazard Reduction around Buildings and Structures Regulations. If residential development occurs within VHFHSZ, a Fire Protection Plan that describes

Action 3.3c: Home Improvements for Vulnerable Populations. For qualifying households, promote the use of local, county, and state rehabilitation programs and defensible space

assistance, and provide information to vulnerable residents to assist with efforts to improve fire safety.

Action 3.3d: Wildfire Retrofits. Encourage structural hardening retrofits for existing structures in the VHFHSZ, consistent with the current standards.

Action 3.3e: New and Existing Public Facilities. The construction of new public facilities should occur outside of areas designated VHFHSZ when feasible. Existing public facilities in the High Fire Hazard Area shall be retrofitted to be consistent with the current standards.

Action 3.3f: Maintain Emergency Evacuation Routes. Ensure that the entity charged with maintenance of the road complies with the requirements of the State Fire Code and San Bernardino Consolidated Fire Codes regarding street width, surface, grade, radius, turnarounds, turnouts, bridge construction, and lengths of fire apparatus access roads. All requirements and any deviations will be at the discretion of the Fire Code Official. Enforce these standards on new development in VHFHSZ through development review, and on existing development through code enforcement. Work with the City's Geographic Information Systems (GIS) mapping services to identify any residential areas that do not have at least two emergency evacuation routes or are otherwise inadequate due to access or timeliness of evacuation. Develop an evacuation route improvement plan upon identification of evacuation route inadequacies.

Action 3.3g: Recover from Large Fires Safely. Perform an evaluation of fire-related development standards should a major wildfire require large portions of the City be rebuilt to ensure that redevelopment standards are as fire-safe as reasonably possible.

Action 3.3h: Adequate Peakload Water Supply will be Supported. The City will coordinate with the East Valley Water District to maintain long-term integrity of peakload water supply for structural fire-fighting and wildland fire-fighting and ensure new construction is serviceable by water supply.

Public Health, Safety, and Environmental Justice Element: Policy 3.4

Ensure that public facilities and infrastructure have adequate capacity to respond to wildfires and other relevant hazard events.

Action 3.4a: Performance Standards. Apply fire unit deployment performance measures with future planning of fire stations.

Action 3.4b: Emergency Equipment. Consider the long-term maintenance needs of emergency equipment and facilities when developing the annual budget.

Action 3.4c: Storm Drain Capacity. Continue to ensure that existing and new storm drain and street capacities are adequate to manage a 100-year flood event.

Action 3.4d: New Public Facilities. The construction of new public facilities should occur outside of areas designated VHFHSZ when feasible. Existing public facilities in the VHFHSZ shall be retrofitted to be consistent with the current standards.

Public Health, Safety, and Environmental Justice Element: Goal 4

Maintain adequate emergency preparedness and response capabilities.

Public Health, Safety, and Environmental Justice Element: Policy 4.1

Create culturally appropriate hazard preparation and education.

Action 4.1a: Emergency Alerts for Air Pollution. Use the emergency alert systems and other standard City communications to alert the public when local air quality reaches “Very Unhealthy” levels.

Action 4.1b: Neighborhood-Based Preparedness. Convene and regularly train neighborhood-based emergency response teams (e.g., CERT) and explore incorporating climate change response and recovery. Ensure CERT recruiting includes a diverse set of community members and leaders.

Action 4.1c: Disaster Kits. Work with local places of worship and community organizations to provide disaster kits to vulnerable populations.

Public Health, Safety, and Environmental Justice Element: Policy 4.2
Create resilience centers throughout Highland.

Action 4.2a: Back Up Power. Continue to ensure that critical City facilities have back up energy sources such as battery storage. Prioritize clean energy sources, such as solar, where feasible.

Action 4.2b: Refrigeration. Install refrigerators at resilience centers, such as existing cooling centers and emergency shelter locations, to provide storage for medication in black out or other hazard events.

Action 4.2c: Audit Emergency Childcare. Work with non-profit organizations, such as the Red Cross, to offer emergency childcare for frontline workers in the event that schools are closed in a hazard event.

Action 4.2d: Food Distribution. Work with local foodbanks to distribute food and pop-up food pantries during hazard events.

Action 4.2e: Advertise Regional Programs. Include information on regional assistance programs in appropriate languages during a hazard event.

Public Health, Safety, and Environmental Justice Element: Policy 4.3
Prepare residential areas for flooding and wildfire.

Action 4.3a: Elevate and Anchor. Educate and encourage property owners in flood zones to elevate and anchor critical utilities, including electrical panels, propane tanks, sockets, wiring, appliances, and heating systems.

Action 4.3b: Sandbags. Implement a sandbag program available for residents in flood zones prior to heavy storms.

Action 4.3c: Fire Safe Communications. Prior to fire season, use outreach events and City communication resources to educate the public on how they can create a defensible space around their place of residence and evacuate in case of fire.

Action 4.3d: Require evacuation assessments on residential projects requiring an Environmental Impact Report in designated wildfire hazard severity zones.

Public Health, Safety, and Environmental Justice Element: Policy 4.4

Ensure the Emergency Operations Center (EOC) has adequate capacity to respond to hazard events.

Action 4.4a: EOC Technology. Continue to conduct a periodic review of technology used to support the EOC to ensure systems are updated and effective, including City GIS.

Action 4.4b: EOC Equipment. When feasible, update EOC equipment and supplies as necessary to ensure effectiveness.

Action 4.4c: Staff Training. Continue EOC training and exercise plan for the City staff with EOC responsibilities, and cross train city staff at various EOC positions.

Action 4.4d: Online Training. Expand staff training by conducting quarterly online WebEOC training for EOC staff. Include extended training formats as applicable.

Action 4.4e: Mutual Aid Participation. Continue to participate in Statewide Master Mutual Aid Agreements and local automatic aid agreements.

4.21.3 Environmental Setting: Wildfire

In general, communities in the mountains and foothills in San Bernardino County are at a high risk for wildfire. It has been reported (Placeworks, November 2018) that between 2000 and 2014, 77 wildfire events caused 142 injuries and fatalities and an estimated \$1.5 billion in damages to property, crops, public facilities and infrastructure. This is primarily due to location, vegetation, weather, seasonal Santa Ana Winds and prolonged drought.

In urban areas, urban fires include fires within individual commercial and residential structures, vehicles and vacant lots. The effectiveness of responding to urban fires is generally based on the age of the structures, combustibility of the structural material, proximity of the nearest fire station, efficiency of circulation routes, and water availability to fight fires.

Wildland-urban interface fires occur in areas where urbanized development meets wildland areas with a substantial fuel load. Wind-driven wildland-urban interface fires pose a significant threat to lives and have increased potential to cause significant damage to structures. In wildland and wildland-urban interface areas, cities and counties require the use of fire-resistant building materials, implementation of fuel modification zones, and maintenance of vegetation clearance around structures to protect developed lands from fires, with the goal of reducing the potential loss of life and property.

4.21.3.1 Project Location

The ASGP Planning Area is located within an urban area, north of the San Bernardino International Airport. Neither the City of Highland nor the City of San Bernardino has identified the ASGP Planning Area as being within an area of high wildland fire severity, and neither the California Public Utilities Commission or Cal Fire have designated the ASGP Planning Area as having any fire severity rating.

The ASGP Planning Area is also not considered located within an urban-wildfire interface. The Planning Area is located well within the urban limits of the urban areas of City of San Bernardino and the City of Highland. The closest foothills and the foothill communities with wildland fuel loads lie approximately 4 miles to the north and northeast, in the foothills of the City of Highland. The foothill communities in the City of San Bernardino lie approximately 3 miles to the north.

The Public Utilities Commission fire map viewer identifies the Santa Ana River, located approximately 1.5 miles south of the Plan Area as a "Tier 2" fire threat, meaning there is an elevated risk from a utility associated wildfire within this area. The project area is not in close proximity to the Santa Ana River floodplain.

4.21.3.2 Evacuation Routes

The City of Highland's General Plan cites that the San Bernardino County General Plan identifies potential evacuation routes in and around Highland. Major evacuation routes within the San Bernardino Valley include, but are not limited to, Interstate 10, 15 and 215; State Highway 30; and numerous major and secondary highways.

4.21.4 Thresholds of Significance

The California Environmental Quality Act (CEQA) CEQA Guidelines, Appendix G, a project would normally have a significant effect on the environment if the project is located in or near state responsibility areas or lands classified as very high fire hazard severity zones, and:

- WF-1 Substantially impair an adopted emergency response plan or emergency evacuation plan?
- WF-2 Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?
- WF-3 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?
- WF-4 Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

It should be noted for this assessment that the AGSP Area is not located within or adjacent to any state responsibility areas or lands classified as very high fire hazard severity zones.

This section of Subchapter 4.2 evaluates the level of adverse impact due to the site's potential threat from wildfire that is forecast to occur if the project is implemented as proposed. The level of significance is evaluated through the evaluation of the significance of the site's identified wildfire threat guidelines and the degree of change that will result from implementing the proposed Project.

4.21.5 Methodology

Using published maps from the State and data contained in the cities' General Plans, the boundaries of wildfire hazard areas were compared to the AGSP project area and conclusions regarding potential wildfire impact were drawn.

4.21.6 Potential Impacts

- WF-1 If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?**

The AGSP Area is generally bounded by the following street network:

- Tippecanoe Avenue - west
- 6th Street – north. However, a portion of the northern AGSP boundary near Indian Springs High School dips south along 5th Street between approximately Donna Drive and S. Howard Drive to exclude vacant parcels owned by the East Valley Water District.
- 3rd Street – south
- State Route 210 (SR-210) - east

State Route 210 (SR-210) provides the most direct access to the plan area, being located adjacent to the AGSP's eastern boundary. SR-210 is oriented in a north-south direction adjacent to the Specific Plan eastern boundary, but turns in an east-west direction approximately 2.5 miles to the north of the Specific Plan area. Regional access is provided primarily by Interstate 215 (I-215), located approximately 2 miles to the west of the Specific Plan area and Interstate 10 (I-10) is located approximately 3 miles to the south of the project. I-10, a major east-west transportation corridor, can be accessed by both SR-210 and I-215.

The City Creek Bypass flood control channel flows east-west under Tippecanoe Avenue and Del Rosa Drive, and parallels 3rd Street.

Each of the streets in the AGSP Planning Area are major and minor arterials (except 6th Street) that are designed to handle large quantities of traffic. Additionally, the Project will improve each of these arterials to support future traffic.

During construction of projects in the AGSP, the street network will be upgraded. Only temporary closures may be required during construction. However, per standard traffic control plans, emergency vehicles passage will be maintained. Additionally, due to the location of the AGSP Area being 3 to 5 miles south of the foothills, construction and operation of future projects within the Planning Area are not anticipated to block or otherwise interfere with any of these streets being used as part of any evacuation plan.

Mitigation Measures: None Required

Level of Significance: Less Than Significant

WF-2 If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?

The Planning Area is essentially flat and entirely surrounded by urban uses. Based on the area's location, implementation of the proposed project will not exacerbate wildfire risks.

Santa Ana winds are common in the San Bernardino region. The project will construct industrial, warehousing and industrial business uses that are anticipated to employ hundreds of people in this urban area. Smoke from wildfires that may occur in the Santa Ana Wash (located approximately 1.5 miles to the south) or the foothills and mountains to the north may generally impact air quality throughout the region, including existing and future businesses in the AGSP area. Santa Ana winds are generally from the north and the San Bernardino Valley (including the project area) residents and employees could be exposed to the smoke plumes from a wildfire in the San Bernardino Mountains. However, the exposure would be short term and the same Santa Ana winds that could blow the plume towards the valley floor, including the project area, can

disperse the plume during and immediately after a wildfire is controlled. Due to the short-term exposure of the project area to a wildfire plume, no significant adverse exposure is forecast to occur for future employees of businesses within the AGSP Planning Area.

Mitigation Measures: None Required

Level of Significance: Less Than Significant

WF-3 If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project 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?

The AGSP is located in an urban area. Installation or maintenance of associated infrastructure such as fuel breaks, emergency water sources, power lines, etc. that may exacerbate fire risks or result in temporary ongoing impacts to the environment is not required. Thus, the proposed project will not result in any adverse wildfire impacts if implemented.

Mitigation Measures: None Required

Level of Significance: No Impact

WF-4 If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

As described in the preceding evaluation, the proposed project will not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

While the natural City Creek channel exists along the eastern portion of the AGSP Planning Area, the channel is at the periphery of the AGSP Planning Area and discharges causing flow in this channel have a low potential to adversely impact adjacent areas due to the distance of the area from the wildland fire hazard zone and the lack of future potential structures adjacent to the channel. In addition, City Creek channel is not identified in any local or state fire hazard mapping as a potential fire risk. Further, no construction other than channel improvements associated with the 5th Street bridge crossing improvements may occur across the City Creek channel. Thus, no significant drainage changes will occur within the single area that may be exposed to indirect impacts from wildfire.

Mitigation Measures: None Required

Level of Significance: No Impact

4.21.7 Mitigation Measures

No mitigation is required under the Wildland environmental topic.

4.21.8 Cumulative Impacts

Level of Significance: No Impact

Because implementation of the AGSP would not result in impacts to any wildfire issues, the proposed project would not contribute to any cumulative impacts thereof. Wildland fire hazards within the two cities and foothill and mountain areas may be considered significant, but as indicated, future development of the AGSP will not contribute to cumulative wildland hazards.

4.21.9 Unavoidable Adverse Impacts

As determined above, no significant and/or unavoidable adverse impacts as a result of wildfire threats will occur as a result of the proposed project.

CHAPTER 5 – ALTERNATIVES

5.1 INTRODUCTION

The California Environmental Quality Act (CEQA) and the State CEQA Guidelines require an evaluation of alternatives to the proposed action. The purpose of the alternatives evaluation under CEQA is to determine whether one or more feasible alternatives is capable of reducing potentially significant impacts of a preferred project to a less than significant level. The applicable text in the State CEQA Guidelines occurs in Section 15126 as follows:

Section 15126.6 (a): Alternatives to the Proposed Project. An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation.

Section 15126.6 (b) Purpose. Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the 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.

The following objectives have been established for the proposed project and will aid decision makers in their review of the Airport Gateway Specific Plan (AGSP), its associated environmental impacts, and the proposed alternatives to the project:

- **Economic Opportunities:** Attract innovative and job-generating businesses that deliver an array of job types (diversity of qualifications, wages, and salaries) near the area's residential communities and that can respond to changing demand and market conditions in the future.
- **Infrastructure:** Provide comprehensive infrastructure improvements for water, sewer, circulation system, and stormwater that resolve longstanding flooding and hydrology issues and that are adequately financed to meet future system needs.
- **Distinctive Design and Appearance:** Gateways, corridors and buildings within the Airport Gateway Specific Plan are anticipated to feature landmark design elements, create a memorable visitor experience, and provide a unified sense of identity. Building and roadway treatments in this area command the same level of investment and quality of design as achieved under the adjacent Alliance Specific Plan.
- **Streetscape Improvements:** Consistent roadway design and improvements, including landscape, monumentation and an integrated, seamless approach to ongoing maintenance across jurisdictional boundaries.
- **Mobility:** Efficiently connect new industrial, office and existing distribution uses to freeway access while providing safe spaces for pedestrians, cyclists, transit, and motor vehicles along 3rd, 5th and 6th Streets and gateway nodes. Local businesses support and incentivize bike, car ride-share programs, and other alternative modes of transportation, to further support efforts to reduce vehicle miles travelled and greenhouse gas emissions in the region.

- Integrated Planning: Collaboration between agencies and property owners occurs on a regular basis to identify catalyst sites to initiate new businesses, to encourage innovative development, and to develop joint solutions to issues that arise within the project area.

Overall, the purpose of developing a specific plan for the Airport Gateway Area is to align local and regional development objectives and implementation efforts for future land use, mobility, and economic development efforts in the multi-jurisdictional plan area.

The primary goal of the AGSP is to implement a collaborative effort, intended to provide a regulatory framework for the plan area that includes a comprehensive theme for the corridor, to refine land use and development codes, provides efficient and effective access to freeway corridors, improves infrastructure and drainage, and develops streetscape and design standards that support opportunities for transition and change within the planning area.

One of the alternatives that must be evaluated in an environmental impact report (EIR) is the “No Project Alternative,” regardless of whether it is a feasible alternative to the proposed Project, i.e., would meet the project objectives or requirements. Under this alternative, the environmental impacts that would occur if the proposed Project is not approved and implemented are identified. Under this alternative, existing uses, including residential development and commercial uses, would remain in place. The vacant acreage (290 acres) would remain vacant and undeveloped under this alternative and the existing uses would remain as follows on Table 3-1 (extracted from Chapter 3, Project Description).

**Table 3-1
EXISTING LAND USE ESTIMATES¹
(EXCLUDING ROW AND FLOODWAY)**

Land Use Classification	TOTAL			CITY OF HIGHLAND			CITY OF SAN BERNARDINO		
	Acres	SF ²	Employment ³	Acres	SF ²	Employment ³	Acres	SF ²	Employment ³
Commercial⁴	19.87	150,647	301	17.31	131,328	262	2.56	19,319	39
Educational Facilities⁵	0.66	3,000	6	0.66	3,000	6	0	0	0
Industrial	75.72	526,915	176	60.11	418,289	140	15.61	108,626	36
Public Facilities	0.94	3,686	4	0.94	3,686	4	0	0	0
Vacant⁶	290.21	N/A	N/A	116.67	N/A	N/A	173.54	N/A	N/A
Residential	127.96	N/A	N/A	100.65	N/A	N/A	3.66	N/A	N/A
Total	515.36⁷	684,248	487	296.34	556,303	412	195.37	127,945	75

Notes

1. The data provided in the above table was derived from the San Bernardino County Parcel Map Viewer (<https://www.arcgis.com/apps/webappviewer/index.html?id=87e70bb9b6994559ba7512792588d57a>) and was cross referenced utilizing both Google Maps/Street View and a survey of the project area. Accessed in 2020 and early 2021.
2. SF = square feet. The non-residential square feet is from the San Bernardino County Parcel Map Viewer (<https://www.arcgis.com/apps/webappviewer/index.html?id=87e70bb9b6994559ba7512792588d57a>). Accessed in 2020 and early 2021.
3. Employment generation rates of 3,000 SF/job for industrial, 1000 SF/job for public facilities and 500 SF/job for Commercial and Educational Facilities were used. If industrial land uses were employee intensive than employment rate would be closer to 2,000 SF/job. If warehouses/distribution are highly automated, the employment rate would be closer to 4,000 SF/job. 3,000 SF/job has been applied as an average.
4. Commercial properties generally consist of strip center commercial, gas station, offices, and hotel uses.
5. Highland Head Start
6. Vacant land includes some acreage that should be dedicated to ROW and floodway because some Assessors Parcel Numbers (APNs) are not broken down to exclude ROW and floodway acreage that may be adjacent to an existing use. As such, the actual vacant land to be developed by the project has been determined to be 290 acres.

- The total acreage provided includes, as with Vacant land discussed under item “6” above, superfluous acreage that is dedicated to ROW and floodway, and will remain dedicated to ROW and floodway under the propose AGSP. The acreage reflects the best estimate of existing uses as described under item 1, above.

Additionally, the existing residential within the project area are broken down as follows on Table 3-2 (extracted from Chapter 3, Project Description).

**Table 3-2
 EXISTING LAND USE ESTIMATES¹
 RESIDENTIAL BREAKDOWN**

Residence Type	TOTAL			CITY OF HIGHLAND			CITY OF SAN BERNARDINO		
	Acres	Units ²	Population ³	Acres	Units ²	Population ³	Acres	Units ²	Population ³
Apartment/Condo	14.44	247	803	12.79	241	784	1.65	6	19
Duplex/Triplex/Quadplex	7.72	92	299	7.72	92	299	0	0	0
Mobile Home	1.49	40	130	1.49	40	130	0	0	0
Single Family Detached	104.31	381	1,239	100.65	375	1,220	3.66	6	19
Total	127.96	760	2,471	122.65	748	2,433	5.31	12	38

Notes

- The data provided in the above table was derived from the San Bernardino County Parcel Map Viewer (<https://www.arcgis.com/apps/webappviewer/index.html?id=87e70bb9b6994559ba7512792588d57a>) and was cross referenced utilizing both Google Maps/Street View and a survey of the project area. Accessed in 2020 and early 2021.
- The units have been calculated utilizing the San Bernardino County Parcel Map Viewer (<https://www.arcgis.com/apps/webappviewer/index.html?id=87e70bb9b6994559ba7512792588d57a>) and was cross referenced utilizing both Google Maps/Street View and a survey of the project area, as well as verification of units for large apartment buildings utilizing rental websites such as Zillow.com. Websites were accessed in 2020 and early 2021.
- Existing population numbers are estimates calculated using 3.52 persons per household for both cities and a vacancy rate of 7.6 % for Highland and 9.0% for San Bernardino (DOF, Jan 2017)

This is a true no project alternative, in that it assumes that all of the approximately 290 acres of vacant land remain undeveloped, and the project area does not undergo significant change from that which exists at present.

Another alternative is the No Project Alternative with Vacant Land Developed under the Existing Land Use Designations. Under this Alternative, the approximately 290 acres of vacant land would be developed in addition to those uses that exist at present remaining in place. Under this Alternative, the existing conditions outlined above under Tables 3-1 and 3-2 would remain the same. Development that could occur within the planning area is assumed to follow the current underlying land use designations for the project area, much of which is developed (existing uses are anticipated to remain as they exist at present under the No Project Alternative), and much of the land that is vacant that could be developed is already designated for Business Park and Industrial Use (refer to the existing land use map provided as Figure 3-4).

**Table 5-1
VACANT LAND USE, UNDERLYING LAND USE DESIGNATIONS ESTIMATES
(EXCLUDING ROW AND FLOODWAY)**

Land Use Classification ¹	TOTAL				
	Acres	SF	Employment	Residential Units	Population ⁴
Commercial	81.48	617,748 ⁷	4,530 ¹⁰	-	-
Industrial ¹³	61.48	427,820 ⁸	141 ¹¹	-	-
Public Facilities	0.37	1,451 ⁹	2 ¹²	-	-
Single Family Residential	73.91	-	-	270 ²	867 ⁵
Multi-Family Residential	72.97	-	-	1,168 ³	4,584 ⁶
Total	290.21	1,047,019	4,673	1,438	5,451

¹ The total acreage provided includes superfluous acreage that is dedicated to ROW and floodway, and will remain dedicated to ROW and floodway under the propose AGSP. The acreage reflects the best estimate of existing uses.

² 3.65 single family units per acre; based on the existing single family units per acre calculated utilizing data from Table 3-1

³ 16 multi-family units per acre; based on the existing apartment, condo, and duplex/triplex/quadplex, and mobile home units per acre calculated utilizing data from Table 3-1

⁴ Population numbers are estimates calculated using 3.52 persons per household for both cities and a vacancy rate of 7.6 % for Highland and 9.0% for San Bernardino (DOF, Jan 2017)

⁵ Population is calculated utilizing note "4" above and the existing acreages that are vacant within each City; 19.61 acres are located in the City of Highland and 54.36 acres are located in the City of San Bernardino

⁶ Population is calculated utilizing note "4" above and the existing acreages that are vacant within each City; 0.17 acres are located in the City of Highland and 54.36 acres are located in the City of San Bernardino

⁷ 7,581.6 SF per acre Commercial

⁸ 6,958.7 SF per acre Industrial

⁹ 3,921 SF per acre Public Facilities

¹⁰ 55.6 employees per acre Commercial

¹¹ 2.3 employees per acre Industrial

¹² 4.3 employees per acre Public Facilities

¹³ Industrial uses include Business Park uses as well as those designated as Industrial.

The following table combines the existing population and uses outlined in Tables 3-1 and 3-2 above, with the anticipated population based on land use designations of vacant land within the AGSP.

**Table 5-2
EXISTING PLUS VACANT LAND USE ESTIMATES
(EXCLUDING ROW AND FLOODWAY)**

Land Use Classification	TOTAL				
	Acres	SF	Employment ³	Units	Population ²
Commercial	101.35	768,395	4,831	-	-
Educational Facilities	0.66	3,000	6	-	-
Industrial	137.2	954,735	317	-	-
Public Facilities	1.31	5,137	6	-	-
Single-Family Residential	178.22	-	-	651	2,106
Multi-Family Residential	96.62	-	-	1,547	5,816
Total	515.36¹	1,731,267	5,160	2,198	7,933

¹ The total acreage provided includes superfluous acreage that is dedicated to ROW and floodway, and will remain dedicated to ROW and floodway under the propose AGSP. The acreage reflects the best estimate of existing uses.

² Population numbers are estimates calculated using 3.52 persons per household for both cities and a vacancy rate of 7.6 % for Highland and 9.0% for San Bernardino (DOF, Jan 2017)

³ Employment generation rates of 3,000 SF/job for industrial, 1000 SF/job for public facilities and 500 SF/job for Commercial and Educational Facilities were used. If industrial land uses were employee intensive than employment rate would be closer to 2,000

SF/job. If warehouses/distribution are highly automated, the employment rate would be closer to 4,000 SF/job. 3,000 SF/job has been applied as an average.

For reference, the proposed land uses under the AGSP (Table 3-3) are copied from the Project Description for comparison purposes against that which is provided under Table 5-2 above, as follows:

**Table 3-3
 PROPOSED LAND USE**

Land Use Designation	Acres	Non-Residential SF	Hotel SF ⁸	Hotel Room ⁸	%	Employment ²
Mixed Use Business Park^{1,2,3,4}	468.29	9,271,256 ⁹	75,000	150	-	5,097
Industrial Distribution⁴	70.24	1,376,919	-	-	15	459
Industrial⁴	327.8	6,425,623	-	-	70	2,142
Tech Business Park⁵	60.88	1,325,922	-	-	13	2,210
Commercial⁶	9.37	142,792	-	-	2	286
ROW⁷	141.05	0	-	-	-	-
Floodway	68.6	0	-	-	-	-
Total	678.13	9,271,256⁹	-	-	-	5,097

¹ Classifications from SANBAG (2012) which were derived from SCAG's original classifications.

² Employment generation rates of 3,000 SF/job for industrial (warehousing/distribution), 600 SF/job for tech businesses/light industrial and 500 SF/job for Commercial uses were used. If industrial land uses were employee intensive than employment rate would be closer to 2,000 sq. ft/job. If warehouses/distribution are highly automated, the employment rate would be closer to 4,000 SF/job. 3,000 SF/job has been applied as an average. Assumes 100 hotel employees, see #8 below.

³ Mixed Use Business Park assumed to be 15% Industrial Distribution/ Logistics, 70% General/Light Industrial, 13% Tech Business Park, 2% Commercial/Retail/Service uses.

⁴ Industrial and distribution uses were assumed at a 0.45 FAR. The City of Highland General Plan assumes a maximum 0.45 FAR for industrial and business park and a maximum of 0.50 FAR for office uses. The San Bernardino General Plan assumes a maximum 0.75 FAR for heavy and light industrial uses, and an FAR of 1.0 for office parks. Based on the conceptual design concepts envisioned for the plan, the building footprints are anticipated to be closer to 0.45 FAR, which was applied to this Proposed Land Use buildout table as an average (the SP may allow a higher maximum per building so long as the total square footage assumed in this table is not exceeded).

⁵ A 0.50 FAR was used for Tech Business Park. Typically, Tech Business Park uses range in intensity from about 0.35-0.75 FAR. The AGSP assumes a .50 FAR as an average. 6. A 0.35 FAR was used for the Commercial use. The intensity could range between 0.30-0.50 FAR. The AGSP assumes a .35 FAR.

⁷ Right of way acreages reflect the existing alignment of 5th street.

An alternative could remove existing public right of way along 5th Street between Tippecanoe and Central Ave. (approx 41.53 acres) to accommodate larger building footprints as a part of new distribution and warehousing uses envisioned in the plan. A few smaller streets will also likely be removed over time as existing residential parcels are consolidated and transition to industrial or tech business uses. These acreages also assume construction of a new alignment for 5th Street east of Victoria Ave. that re-routes traffic to a new connection down to 3rd Street. The actual acreage numbers for the ROW, floodway, and various land uses will likely vary depending on the design of the ultimate alignment. The acreage associated with the rerouting of 5th Street is estimated, as the ultimate alignment would be determined at a later date and may not precisely match the alignment reflected on the proposed plan (new alignment estimated to be about 90' wide, similar to existing ROW widths along 5th Street at Central Ave.).

⁸ Hotel estimated at about 500 gross sq. ft. per room (which includes walls, elevators, stairways, corridors, storage, and mechanical areas, etc.) Source: Planning and Programming a Hotel, Jan A. deRoos, Cornell University (2011) <http://scholarship.sha.cornell.edu/cgi/viewcontent.cgi?article=1293&context=articles> Hotel employees: <https://www.quora.com/How-many-employees-do-I-need-to-manage-a-150-room-hotel>

⁹ These numbers have been rounded to the nearest whole number.

No other alternatives to the proposed Project are given consideration or evaluated in this chapter since no other practical or feasible alternatives have been proposed. For example, there is limited area around the San Bernardino International Airport (SBIA or Airport), as much of the area surrounding the Airport has been redeveloped in the years since Norton Air Force Base (NAFB) closed. This is the only remaining developable area adjacent to the Airport that has yet to undergo intense redevelopment since the closure of the NAFB. For example, the Santa Ana River floodplain occurs to the south of the Airport and heavy industrial/mining uses exist to the east. The redevelopment of the AGSP area would result in greater buffers between the Airport and industrial and business park uses, from nearby residences (approximately 660 feet between 5th and 6th Streets), thereby minimizing future health risk at sensitive receptors from heavy trucks utilizing primary area roadways—such as 5th Street, 3rd Street, and Victoria Avenue. Additional alternatives that were determined to be infeasible because this would not meet IVDA's or the Cities of Highland and San Bernardino's objectives include the following: A specific plan with a greater focus on commercial development (this alternative is considered infeasible because there is not enough demand for such services in this area) partly due to the commercial development along the Interstate 10 corridor, downtown San Bernardino, Baseline Street in the City of Highland, and the Redlands downtown core; and, a specific plan focused on Mixed-Use residential/commercial/business park (this alternative is considered infeasible because residential development in close proximity to industrial and business park uses is not an ideal long-term planning solution for this area due to the air emissions generated by incoming and outgoing flights, as well as the diesel particulate matter generated from heavy trucks from existing warehouse/logistics facilities utilizing planning area roadways). Thus, the alternatives considered in this chapter include:

1. No Project Alternative
2. No Project Alternative with Vacant Land Developed under the Existing Land Use Designations

The following evaluation also includes identification of an environmentally superior alternative as required by the State CEQA Guidelines. The two alternatives were developed during review of the project with the IVDA and include all components of the Project. No other plausible alternatives were identified during the review process for consideration in this DEIR.

5.1.1 CEQA Requirement

The California Supreme Court determined that examination of infeasible alternatives need not be given exhaustive evaluation. Specifically, the court case Citizens of Goleta Valley v. Board of Supervisors, 1988 the court stated:

[A] Project alternative which cannot be feasibly accomplished need not be exhaustively considered. A feasible alternative is one which can be accomplished in a successful manner within a reasonable period of time, taking into account economic, legal, social and technological factors [Citations.] Surely whether a property is owned or can reasonably be acquired by the project proponent has strong bearing on the likelihood of a project's ultimate costs and the chances for an expeditious and successful accomplishment.

The State CEQA Guidelines, Section 15126.6(f)(1) state: *Feasibility. 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 (projects with a regionally significant impact should consider*

the regional context), 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). No one of these factors establishes a fixed limit on the scope of alternatives.

5.2 NO PROJECT ALTERNATIVE

5.2.1 Overview of No Project Alternative

The No Project Alternative (NPA) is required under CEQA to evaluate the environmental effects associated with no action on the part of the Lead Agency. Under this alternative, the environmental impacts that would occur if the proposed Project is not approved and implemented are identified. Under this alternative, existing uses, including residential development and commercial uses, would remain in place. The vacant acreage (290 acres) would remain vacant and undeveloped under this alternative and the existing uses would remain as listed above on Table 3-1 (extracted from Chapter 3, Project Description). This alternative evaluates the environmental impacts resulting from a hypothetical continuation of the existing land use.

Aesthetics

Under the NPA no new development would occur within the AGSP planning area, and as such, the overall aesthetics of the planning area are not anticipated to change substantially from that which exists at present. In some ways, without any redevelopment or development of vacant land anticipated under this Alternative, except where future projects on occupied or vacant land arise with possible development proposals, the planning area will remain visually unchanged. Without an effort to improve the area, as would occur under the AGSP, the visual setting would, in some areas, remain inconsistent with the Cities' visions depicted in the General Plan as many of the uses in this area are non-conforming to the underlying general plan land designations, or have been in place long before the most recent General Plan was adopted. Regardless, under the NPA, no significant aesthetic impacts would occur as no changes in the existing setting are anticipated. However, as discussed under Subchapter 4.2, Aesthetics, impacts from the AGSP would be less than significant. Given that the AGSP would alter the existing visual setting and requires mitigation to underground utilities, ensure adequate landscaping is provided by future projects under the AGSP, ensure protection of established trees where possible, provide adequate glare prevention, and provide buffer designs to minimize light pollution at sensitive receptors, the NPA would have lesser aesthetic impacts those of the proposed AGSP, but no significant impacts would occur under either the AGSP or NPA scenarios.

Agricultural and Forestry Resources

The NPA would retain the planning area as it exists at present with current uses and no adverse impact to any agricultural or timberland resources would occur under this alternative. There are no agricultural or timberland resources within the planning area. The proposed AGSP will convert approximately 468 acres of the planning area from existing uses and vacant land to more intense Mixed Use Business Park uses. Based on the data and the analysis contained in this DEIR (Subchapter 4.3), the value of the soils and agricultural productivity of this site was determined to be relatively low given that the site is not mapped as or designated for agricultural or forestry use. No prime farmland or farmland of Statewide Importance would be lost. Thus, both the AGSP and the NPA would have no impact on agricultural or timberland resources.

Air Quality

Since no construction activity would occur, the NPA would not have any short-term impacts on air quality beyond that which occurs at present. However, the existing uses would continue to operate as they do at present, with no new uses anticipated under this alternative. Under the air quality evaluation, the proposed AGSP was compared against the existing baseline scenario within the planning area. Redevelopment of the planning area as proposed under the AGSP would result in exceedances of SCAQMD thresholds for NO_x and PM₁₀ even when taking into account the reduction in emissions that would occur from eliminating existing uses. While existing uses generate significant air quality emissions, for the purpose of this analysis, emissions generated by existing uses are not considered significant. In some cases, the operation of the existing uses represents a large share of emissions for some pollutants (refer to Table 4.4-12); for VOC, CO, and PM_{2.5}, the existing uses generate more emissions than that which would be generated by operation of the AGSP; however, the AGSP would generate greater NO_x, SO_x, and PM₁₀ emissions. Ultimately, in the comparison between the NPA and the AGSP, both projects would have similar impacts on air quality emissions. However, the AGSP would result in significant construction-related air quality emissions, while the NPA would not generate construction emissions because no new construction is anticipated to occur under this NPA.

In terms of impacts to sensitive receptors, the NPA would not cause any new impacts or health risks to sensitive receptors to occur. However, under the AGSP, the ultimate removal of sensitive receptors and replacement of those uses with Mixed Use Business Park uses would create a greater buffer between the Airport and heavy trucks from existing warehouse/logistics facilities utilizing planning area roadways and sensitive receptors that would ultimately be relocated to outside of the planning area. The relocation of these existing residential uses would create a buffer from air emissions generated by incoming and outgoing flights, as well as the diesel particulate matter generated from diesel trucks utilizing planning area roadways. The AGSP would ensure that health risk assessments are prepared for individual projects exceeding the baseline threshold, and enforce mitigation that would ensure health risk is minimized below significance thresholds. Ultimately, the impacts to sensitive receptors under the AGSP and NPA would be less than significant.

Overall, air quality impacts from the NPA would be slightly less than those of the proposed AGSP and a long-term unavoidable significant adverse impact would be eliminated under this alternative.

Biological Resources

The NPA would not result in any change to the existing biology of the planning area. Based on the biological resources survey, the project site is totally disturbed and does not contain any native plant communities or sensitive biological resources; however, impacts to the City Creek Bypass Channel would require mitigation to ensure the appropriate permits are obtained to enable expansion/redesign of the channel. Additionally, impacts to burrowing owl require mitigation as the vacant land and possibly some developed land that exists within the planning area contains suitable habitat for burrowing owl which are known to occur in the planning area. No other sensitive habitat, including riparian habitat, was identified within the AGSP. Therefore, based on this information, the NPA would have less overall impact to biological resources than the proposed AGSP, but neither alternative would have any significant biological resource impacts.

Cultural Resources

The NPA would not result in a change to any existing cultural resources of the project site and would not introduce large numbers of people into the area which can cause indirect impacts to cultural resources. The cultural resources information presented in this DEIR indicates the proposed project can be implemented without significant cultural resource impacts based on implementation of mitigation measures. Implementation of the AGSP may contain historical resources due to the age of the existing structures and known history of the project area. It is possible that some of the buildings within the project area may qualify as significant historical resources, and also possible that subsurface historical resources could be discovered during construction, so mitigation has been identified to address these circumstances. Therefore, based on this information, the NPA would have less potential overall impact to cultural resources than the proposed project, but neither alternative would have any significant adverse cultural resource impacts.

Energy

The NPA would, much like the generation of air quality emission that occurs at present, continue to generate electricity in the manner that occurs at present, but would not create any new demand for electricity beyond that which exists at present. The proposed AGSP provides for greater opportunities to protect and improve energy efficiency through meeting current regulatory requirements, encouraging energy conservation and sustainable building practices, as well as promoting green development. Through implementation mitigation referenced in the Section 4.4 Air Quality, local General Plan policies, State and Federal regulations pertaining to energy conservation, SCE programs, and other existing regulations, the proposed Project's potential energy cumulative and Project-specific impacts can be controlled and will be reduced below a level of significance. As such, it is anticipated that neither the NPA nor the AGSP would result in significant energy impacts, though the NPA would have less potential overall energy impacts than the proposed project.

Geology and Soils

The NPA would not result in a change to geology and soils within the AGSP planning area, and would not introduce large numbers of people into the area which can cause exposure to impacts related to geology and soils such as seismic ground shaking, liquefaction, etc. Contrastingly, the AGSP would result in new development within the planning area, which would, in turn, result in a larger number of structures/people potentially exposed to substantial adverse effects associated with severe ground shaking or ground failure. However, impacts related to geologic and seismic hazards associated with the AGSP would be less than significant by adherence to and/or compliance with building codes and standards and the goals and policies of the proposed City's General Plans, as well as through implementation of mitigation that would minimize geology and soils impacts to a level of less than significant. Though neither alternative would result in a significant impact, the NPA would result in lesser impacts under geology and soils due to the lack of new development that would result in persons that could be exposed to geologic hazards.

Greenhouse Gas

Since no construction activity would occur, the NPA would not have any short-term impacts on greenhouse gas beyond that which occurs at present. However, the existing uses would continue to operate as they do at present, with no new uses anticipated under this alternative. Under the

greenhouse gas evaluation, the proposed AGSP was compared against the existing baseline scenario within the planning area. Redevelopment of the planning area as proposed under the AGSP would result in exceedances of SCAQMD thresholds for greenhouse gas (GHG), which take into account construction activities amortized over a 30-year period, as well as operational GHG emissions even when taking into account the reduction in emissions that would occur from eliminating existing uses. While existing uses generate significant greenhouse gas emissions, for the purpose of this analysis, emissions generated by existing uses are not considered significant. The operation of the existing uses would generate about 29,000 metric tons of CO₂e per year (MT CO₂e/yr), while the AGSP would generate about 98,500 MTCO₂e/yr of GHG emissions. As such, while the existing uses generate greater energy source and area source GHG, the AGSP would generate greater overall GHG emissions. Ultimately, GHG emissions from the NPA would be substantially less than those of the proposed AGSP particularly because the NPA would not generate any construction emissions, and also would not represent as intense of GHG generating uses as the AGSP.

Hazards and Hazardous Materials

Under the NPA, existing uses would remain in place and operational, with no new uses planned for the vacant land within the planning area. Existing uses currently utilize hazardous materials, whether household materials, or materials for commercial use, and must comply with local, State, and Federal laws pertaining to the handling of hazardous materials. No greater intensity of development would occur under the NPA, and as residential uses would remain in place; as such, the potential for impacts related to routine transport, use or disposal of hazardous materials would be less than under the AGSP. Under the AGSP, the proposed project would result in greater intensity of development, through the replacement of existing uses and the development of vacant land within the planning area. Though there will be some adverse hazard and hazardous materials impacts as a result of implementing the AGSP, specific mitigation measures have been identified to reduce potential Project specific and cumulative (direct and indirect) effects to a less than significant impact level. As such, based on this information, the NPA would have lesser impacts related to hazards and hazardous materials than the AGSP, but neither alternative would have any significant impacts under this issue.

Hydrology and Water Quality

Under the NPA, the existing uses would remain the same, with no new uses planned for the vacant land within the planning area, and as such the hydrology of the area would remain the same. The existing setting of the planning area is such that the existing stormwater collection systems do not have capacity to accommodate existing and future surface flows. This is because, in most cases, surface runoff flows travel along north-south roadway shoulders and enter into the City Creek By-Pass Channel through culverts with insufficient capacity. As such, under the NPA, the vital infrastructure updates within the planning area would not be developed, and therefore the NPA could result in a significant impact related to stormwater runoff when compared to the AGSP. All other existing hydrological and water quality related within the planning area meet existing demands or are otherwise operating proficiently. The proposed AGSP will make unavoidable alterations in the Planning Area hydrology and the proposed uses have a potential to result in generation of new pollutants from the proposed urban/suburban environment that can degrade water quality. However, through implementation of mitigation all potential hydrology and water quality impacts can be controlled to a less than significant impact level. Furthermore, implementation of the AGSP would include modifications to the City Creek By-Pass channel to enable it to accommodate existing and future flows. Based on this information, the NPA has a

potential to result in a significant impact to area hydrology, while the AGSP would not cause unavoidable significant hydrology or water quality impacts, and therefore, the AGSP would result in lesser hydrology and water quality impacts when compared to the NPA.

Land Use and Planning

Under the NPA, the existing underlying land uses would not change, and the vacant land is anticipated to remain undeveloped. Under this alternative, many nonconforming uses would remain in place in areas that each of the two Cities have designated for alternative uses (for instance, residential uses within land designated for industrial use). As such, the NPA would not contribute to the Cities' plans for development that would accommodate future population growth, and therefore would not meet some of the current conditions or goals of either City. However, under the NPA, land use and planning impacts would remain less than significant as there would be no direct conflict with the Cities' General Plans as these uses are existing and are therefore allowed by the Cities. The AGSP would lead to greater urbanization of this area, which contains about 290 acres of vacant land, thus it would further meet the visions of the Cities of San Bernardino and Highland set forth in their general plans. However, as discussed under the tables provided above, the existing uses and existing land uses of the vacant land available are not congruous with that which is proposed by the AGSP. The AGSP would result in a change in character within the planning area, though it was determined that the proposed project would be consistent with the relevant goals of the SCAG RTP/SCS and each City's General Plan Land Use Element Goals. Under the AGSP, mitigation is required to establish a relocation program, and ensure that a community facilities district is established. Based on this information, neither the NPA nor the AGSP would result in significant land use and planning impacts.

Mineral Resources

Under the NPA, no impacts to existing mineral resources would occur as the planning area and surrounding area do not contain any existing mineral developments. The AGSP planning area does not contain any identified potential for mineral resource development. Based on these data, neither the NPA nor the AGSP would result in significant mineral resource impacts.

Noise

Since no construction activity would occur, the NPA would not generate any short-term construction noise impacts. Under the NPA operational and traffic noise would continue to be generated from existing uses within the planning area. Under Subchapter 4.14, the AGSP compared the noise generated by the project to the existing noise levels generated by existing uses. In some cases, existing sensitive receptors experience ambient noise levels greater than that which is allowable by the Cities' noise standards; however, in all cases, the operations of the AGSP would increase noise levels beyond that which exists at present, and in most cases the AGSP would increase offsite traffic noise beyond that which exists at present. Under the AGSP, construction noise impacts, operation noise impacts, and vibration noise impacts are less than significant with the implementation of mitigation to reduce noise generated from these activities to the extent feasible. However, off-site transportation noise level increases at adjacent noise-sensitive residential homes are considered significant and unavoidable; therefore, noise impacts from the NPA would be substantially less than that of the proposed Project and implementation of the NPA would eliminate an unavoidable significant adverse impact.

Population and Housing

Under the NPA, the existing population would remain in place within the planning area, though no new opportunities for employment or housing development would occur. The NPA would also ensure that the existing housing remains in place and would not require relocation as is planned and required to develop the AGSP. The proposed AGSP may induce population growth, but the proposed project will not induce substantial population growth that exceeds either local or regional projections. However, implementation of the AGSP would result in development that has the potential to displace existing persons and housing within the AGSP Planning Area. As such, mitigation is required to ensure that a Model/Conceptual Relocation Plan will be implemented to ensure that future developers provide adequate relocation resources to affected persons or households. However, the provision of adequate resources to facilitate relocation of persons that would be displaced by the AGSP, and the minimization of the potential for circumstances related to insufficient replacement housing through implementation of mitigation would minimize the potential for a significant adverse impact to occur related to the displacement of existing people or housing necessitating replacement housing elsewhere. Therefore, while the impacts to population and housing under the AGSP are greater than those under the NPA due to the mitigation required to minimize impacts to existing housing within the planning area, neither the NPA nor the AGSP would result in significant population and housing impacts.

Public Services

The NPA would not result in the creation of additional demand for law enforcement and fire department services. The County Sheriff and County Fire Department response times would remain unaffected under the NPA, while the AGSP would create a new demand for these services. The payment of established development impact fees for police and fire department facilities would not occur under the NPA, which is needed to ensure adequate response times for future development. However, under the existing conditions, existing uses are adequately served by the existing fire and police protection services; as such, given that lack of new demand for such services, this impact would be less than those of the proposed project.

The NPA would not result in the creation of additional demand for school services. The capacity of existing schools in the project area would not receive greater students from the planning area than would be anticipated given the existing population of the planning area. School services would remain unaffected under the NPA, while the AGSP would create a new demand for these services through an increase in population that may arise from new employment opportunities. The San Bernardino City Unified School District (SBCUSD) funds construction and operation of new school facilities through school impact fees assessed on new developments and redevelopments that occur within the SBCUSD's area of influence, such a payment would not occur under the NPA, which is needed to ensure capacity and school facilities future development. However, under the existing conditions, existing uses are adequately served by the existing schools; as such, given that lack of new demand for such services, this impact would be less than those of the proposed project.

At present, there is a deficiency in the available parkland within the City of San Bernardino, though the City of Highland is meeting its parkland standard. As such, the NPA would continue under existing conditions with less parkland acreage for existing residents than is the standard of the City of San Bernardino, though the City of Highland offers adequate parkland under existing conditions. Conversely, under the AGSP, the potential for new demand for parks through an increase in population that may arise from new employment opportunities would require additional

parks to support this possible increase in population. As there is not currently a funding mechanism to obtain funds from Industrial and Commercial uses within either the City of Highland or City of San Bernardino, mitigation sets forth the framework from which funding for future parks can be obtained from future AGSP projects. Mitigation will preclude the AGSP from creating any unavoidable significant adverse impact to parks. Given the above, while the AGSP would create a new demand for parks, it would also mitigate for future park demand by requiring future development to fund park and recreation facilities, which would enhance the availability of parks within both Cities. The NPA would not generate any new demand for parks, but also would not provide any additional parks to meet the existing demand for parkland that is currently deficient in the City of San Bernardino. Based on this information, neither the NPA nor the AGSP would result in significant impacts to parks or recreation facilities; however, the AGSP would result in slightly less impacts to parks as it would provide funding for additional parkland within the area.

Recreation

Please refer to the discussion above under Public Services. The AGSP would create a new demand for parks, though it would also mitigate for future park demand by requiring future development to fund park and recreation facilities, which would enhance the availability of parks within both Cities. The NPA would not generate any new demand for parks or recreation facilities, or result in construction thereof, but also would not provide any additional parks to meet the existing demand for parkland that is currently deficient in the City of San Bernardino. Based on this information, neither the NPA nor the AGSP would result in significant impacts to parks or recreation facilities; however, the AGSP would result in slightly less impacts to parks as it would provide funding for additional parkland/recreation facilities within the area, the construction of which is not anticipated to cause significant impacts.

Transportation

Under the NPA, no greater demand on area roadways would occur than that which exists at present. Under the existing conditions, there are a few intersections that are operating at an unacceptable LOS, and these intersections would continue to operate at an unacceptable LOS. The AGSP would result in significant deficiencies on area roadways and area intersections, though these deficiencies would be mitigated below significance thresholds through payment of the Project's fair share to improve deficiencies. Under the NPA, existing roadways would not have a funding mechanism beyond that which exists at present to improve deficiencies. However, the NPA would not contribute to significant vehicle miles travelled (VMT) as these trips are already existing and accounted for under the existing conditions, and therefore, in comparison to the AGSP, which would generate significant VMT beyond identified thresholds with no mechanism for mitigation to minimize impacts available, the NPA would have lesser impacts related to VMT. Overall, as the AGSP would contribute substantial additional traffic to area roadways compared to that which exists at present, and that the AGSP would result in significant and unavoidable VMT, the NPA would have substantially less transportation impacts than would the AGSP, and would avoid a significant impact.

Tribal Cultural Resources

The NPA would not result in a change to any existing tribal cultural resources of the planning area and would not introduce large numbers of people into the area which can cause indirect impacts to cultural resources. The cultural resources information presented in this DEIR indicates the proposed project can be implemented without significant tribal cultural resource impacts. It is

possible that subsurface tribal cultural resources could be discovered during construction, so mitigation has been identified (under Cultural Resources) to address these circumstances. Therefore, based on this information, the NPA would have less potential overall impact to tribal cultural resources than the proposed project, but neither alternative would have any significant adverse tribal cultural resource impacts.

Utilities and Service Systems

The NPA would not result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Furthermore, it would not create new demand for area utilities and service systems. Alternatively, under the AGSP, because the whole of the AGSP would result in significant impacts, including significant construction and operational air quality and greenhouse gas impacts, development under the AGSP would result in a significant and unavoidable potential utilities and services impacts. Furthermore, it is possible that development of reservoirs and wells required to serve the AGSP in the future may cause significant unavoidable adverse impacts due to the unknown locations in which these facilities may need to be developed. Based on this information, the NPA has no potential to result in a significant impact to utilities and service systems, while the AGSP would cause unavoidable significant utilities and service system impacts related to construction of new facilities, and the unknown location in which some facilities may need to be installed, and therefore, the NPA would avoid a significant and unavoidable impact related to utilities and service systems.

Wildfire

Under both the NPA and the AGSP, the location of existing and new facilities remains the same, and the planning area is located about 3 to 5 miles from the southern extension of the San Bernardino Mountain foothills. Therefore, the planning area is located well outside of any delineated high fire hazard severity zone. As such, the existing development as well as any planned development under the AGSP would not result in exposure of persons or structures to significant wildfire hazards. As such, neither the AGSP nor the NPA would result in significant wildfire impacts.

5.2.2 Summary of No Project Alternative

With respect to the NPA, Project objectives are not attained because no development is included as a part of the NPA. With respect to the significant unavoidable impacts of Project, the NPA would avoid some of the unavoidable significant impacts of the Project, but would have a potential to result in significant impacts to stormwater where the AGSP would not. No revenues from new development would be generated, thereby minimizing the potential for the IVDA, City of Highland, and City of San Bernardino to revitalize this area. Furthermore, the NPA would not result in redevelopment of this area, as the AGSP results in greater buffers between the Airport, and industrial and business park uses from nearby residences, thereby minimizing future health risk at sensitive receptors from heavy trucks utilizing area roadways—such as 5th Street, 3rd Street, and Victoria Avenue. Additionally, the NPA would not promote much needed job growth within the area, and would not create economic growth within the cities of San Bernardino and Highland.

5.3 NO PROJECT ALTERNATIVE WITH VACANT LAND DEVELOPED UNDER THE EXISTING LAND USE DESIGNATIONS

5.3.1 Overview of the No Project Alternative with Vacant Land Developed under the Existing Land Use Designations

The No Project Alternative with Vacant Land Developed under the Existing Land Use Designations (NPA2) is provided as an alternative to the AGSP as it would envision the ultimate development of the 290 acres of vacant land under existing land use designations by the Cities of Highland and San Bernardino. Under this alternative, the environmental impacts that would occur if the proposed Project is not approved and implemented, and vacant land is developed are identified. Under this alternative, existing uses, including residential development and commercial uses, would remain in place. The vacant acreage (290 acres) would be developed as outlined under Tables 5-1 and 5-2 above. Of the Vacant acreage that could be developed 81.48 acres are designated for Commercial use resulting in 617,748 SF of commercial development, and 4,530 jobs; 61.48 acres are designated for Industrial use resulting in 427,820 SF of industrial development, and 141 jobs; 0.37 acres are designated for Public Facility use resulting in 1,451 SF of public facility development, and 2 jobs. Additionally, 1,438 residential units, primarily multi-family residences, could be developed under this Alternative, resulting in a population of 5,451 persons.

Ultimately when combined with existing uses, the NPA2 would encompass 101.35 acres are designated for Commercial use resulting in 768,395 SF of commercial development, and 4,831 jobs; 137.2 acres are designated for Industrial use resulting in 954,735 SF of industrial development, and 317 jobs; 1.31 acres are designated for Public Facility use resulting in 5,137 SF of public facility development, and 6 jobs; 0.66 acres are designated for Educational Facility use resulting in 0.66 SF of educational facility development. Additionally, 2,198 residential units could be developed under this Alternative, resulting in a population of 7,933 persons.

Aesthetics

Both the NPA2 and the AGSP would allow for development of the planning area. Under the AGSP, redevelopment of existing uses would occur, while under the NPA2, no redevelopment of existing uses is envisioned. As such, though the underlying land use of the planning areas would be different between the two alternatives, the overall impacts to aesthetics within the project area would be similar under both alternatives. The AGSP would create a more aesthetically consistent, coherent development as a result of the design guidelines required under the proposed specific plan, while the NPA2 would retain existing uses, and as such, new development, while required to be consistent with the applicable general plan, would not create the same consistent planning area development that would occur under the AGSP. Regardless, as discussed under Subchapter 4.2, Aesthetics, impacts from the AGSP would be less than significant, and therefore, impacts under the NPA2 are also anticipated to be less than significant. The AGSP would alter the existing visual setting and requires mitigation to minimize impacts thereof; as such, the NPA2 would have somewhat lesser aesthetic impacts those of the proposed AGSP, but no significant impacts would occur under either the AGSP or NPA2 scenarios.

Agricultural and Forestry Resources

The NPA2 would retain the planning area as it exists at present with current uses, and would enable development of vacant land within the planning area. There are no agricultural or

timberland resources within the planning area, and as such no impacts thereof are anticipated under either the NPA2 or the AGSP. The proposed AGSP will convert approximately 468 acres of the planning area from existing uses and vacant land to more intense Mixed Use Business Park uses. Based on the data and the analysis contained in this DEIR (Subchapter 4.3), the value of the soils and agricultural productivity of the planning area was determined to be relatively low given that the site is not mapped as or designated for agricultural or forestry use. No prime farmland or farmland of Statewide Importance would be lost. Thus, both the AGSP and the NPA2 would have no impact on agricultural or timberland resources.

Air Quality

Under the NPA2, the vacant land that would be developed as proposed under the AGSP would be developed under the existing land use designations. Under this alternative, the timeline by which the vacant land would be developed is unknown, as it would occur as development proposals arise. For the purposes of this analysis, it is assumed that the NPA2 would not occur in the 20-year horizon within which the AGSP would be developed, but would occur over a more lengthy 50-year horizon based on the historic rate of development within the project area. Under this scenario, it is likely that construction related emissions would be lesser on a per-year basis than under the AGSP based on the fact that construction would occur over a greater period of time, and that development would only occur within the 290 acres of vacant land. Under the AGSP, construction emissions would be significant and unavoidable, even with the extensive mitigation proposed as part of this Project.

The existing uses would continue to operate as they do at present, with a substantial change in the existing land uses where vacant land presently exists. Under the air quality evaluation, the proposed AGSP was compared against the existing baseline scenario within the planning area. Redevelopment of the planning area as proposed under the AGSP would result in exceedances of SCAQMD thresholds for NO_x and PM₁₀ even when taking into account the reduction in emissions that would occur from eliminating existing uses. In some cases, the operation of the existing uses represents a large share of emissions for some pollutants (refer to Table 4.4-12); for VOC, CO, and PM_{2.5}, the existing uses generate more emissions than that which would be generated by operation of the AGSP. As such, given that the NPA2 would result in new development, with less overall industrial development proposed and greater commercial and residential uses anticipated under this alternative, it is anticipated that the NPA2 would result in significant operational air quality emissions that could not be mitigated below significance thresholds. Ultimately, in the comparison between the NPA2 and the AGSP, both projects would have similar operational impacts on air quality emissions. However, the AGSP would result in greater, significant construction-related air quality emissions, while the NPA2 would generate more gradual construction emissions because construction is anticipated to occur over a more lengthy build-out horizon under the NPA2.

In terms of impacts to sensitive receptors, the NPA2 would result in greater intensity of development than that which exists at present, and would not create the necessary buffer between the Airport and heavy trucks from existing warehouse/logistics facilities utilizing planning area roadways and area sensitive receptors. As such, given that the AGSP would ultimately redevelop the entire planning area, the necessary buffer described above would occur. The relocation of these existing residential uses would create a buffer from air emissions generated by incoming and outgoing flights, as well as the diesel particulate matter generated from diesel trucks utilizing planning area roadways. The AGSP would ensure that health risk assessments are prepared for individual projects exceeding the baseline threshold, and enforce mitigation that

would ensure health risk is minimized below significance thresholds. Therefore, it is anticipated that, under the NPA2, impacts to sensitive receptors would be greater than under the AGSP.

Overall, air quality impacts from the NPA2 and the proposed AGSP would result in an unavoidable significant adverse impact under this issue.

Biological Resources

The NPA2 would not result in any change to the existing biology of the developed portions of the planning area, but the vacant land would experience a change as a result of new development. Based on the biological resources survey, the planning area is totally disturbed and does not contain any native plant communities or sensitive biological resources; however, impacts to the City Creek Bypass Channel under the AGSP would require mitigation to ensure the appropriate permits are obtained to enable expansion/redesign of the channel. Additionally, impacts to burrowing owl require mitigation as the vacant land and possibly some developed land that exists within the planning area contains suitable habitat for burrowing owl which are known to occur in the planning area. Under the NPA2, new development on vacant land would likely require CEQA evaluation, and therefore would require mitigation to minimize impacts to biological resources. As such, the NPA2 and AGSP would have similar impacts to biological resources, and neither alternative would have any significant biological resource impacts. However, the NPA2 would not require permitting for modifications to City Creek Bypass Channel as anticipated under the AGSP, as these modifications would not be anticipated to occur under this alternative.

Cultural Resources

The cultural resources information presented in this DEIR indicates the AGSP can be implemented without significant cultural resource impacts based on implementation of mitigation measures. Implementation of the AGSP may contain historical resources due to the age of the existing structures and known history of the project area. It is possible that some of the buildings within the project area may qualify as significant historical resources, and also possible that subsurface historical resources could be discovered during construction, so mitigation is required to address these circumstances. Given that the NPA2 would result in similar development of vacant parcels, it is anticipated that these same circumstances would exist under this project; however, under the NPA2, no impacts to significant existing buildings would occur. Therefore, based on this information, the NPA2 would have less potential overall impact to cultural resources than the proposed project, but neither alternative would have any significant adverse cultural resource impacts.

Energy

The NPA2 would, much like the generation of air quality emission that occurs at present, continue to generate electricity in the manner that occurs at present, and it would create any demand for electricity to support new uses that would be developed within vacant land in the planning area. The proposed AGSP would provide for greater opportunities to protect and improve energy efficiency through meeting current regulatory requirements, encouraging energy conservation and sustainable building practices, as well as promoting green development; while this would likely occur under the NPA2 for new development, this would not occur under existing development within the planning area under this alternative. Through implementation mitigation referenced in the Section 4.4 Air Quality, local General Plan policies, State and Federal regulations pertaining to energy conservation, SCE programs, and other existing regulations, the

AGSP potential energy cumulative and Project-specific impacts can be controlled and will be reduced below a level of significance; by this same methodology, the NPA2 would have similar energy impacts given that the same standards and requirements that would apply to new development under the AGSP would occur under the NPA2. As such, it is anticipated that neither the NPA nor the AGSP would result in significant energy impacts.

Geology and Soils

The AGSP would result in new development within the planning area, which would, in turn, result in a larger number of structures/people potentially exposed to substantial adverse effects associated with severe ground shaking or ground failure. However, impacts related to geologic and seismic hazards associated with the AGSP would be less than significant by adherence to and/or compliance with building codes and standards and the goals and policies of the proposed City's General Plans, as well as through implementation of mitigation that would minimize geology and soils impacts to a level of less than significant. The NPA2 would retain existing development, but would develop vacant land under the existing land use designations. As such, the NPA2 would result in similar exposure of persons and structures to adverse seismic or geology-related impacts, and new development would be required to adhere to the same standards and requirements identified in this DEIR under the AGSP. Overall, neither alternative would result in a significant impact, though the AGSP would result in generally safer building practices throughout the entire planning area than would the NPA2. Furthermore, the AGSP would involve the development of fewer residential units and non-residential square footage than would the NPA2, and as such though neither alternative would result in a significant impact, the AGSP would result in slightly lesser impacts under geology and soils due to the reduced number of persons with residences within the planning area that could be exposed to geologic hazards.

Greenhouse Gas

The existing uses under the NPA2 would continue to operate as they do at present, and would create new sources of greenhouse gas emissions as a result of development of the vacant land within the planning area. Under the greenhouse gas evaluation, the proposed AGSP was compared against the existing baseline scenario within the planning area. Redevelopment of the planning area as proposed under the AGSP would result in exceedances of SCAQMD thresholds for greenhouse gas (GHG), which take into account construction activities amortized over a 30-year period, as well as operational GHG emissions even when taking into account the reduction in emissions that would occur from eliminating existing uses. While existing uses generate significant greenhouse gas emissions, for the purpose of this analysis, emissions generated by existing uses are not considered significant. However, the addition of new development over the vacant 290-acre area would result in a gradual increase in operational emissions as development would occur over the 50-year planning horizon for the NPA2. As such, while construction-related GHG emissions would occur over a greater period of time, minimizing the per-year construction emissions, it is still likely that yearly construction emissions under the NPA2 would exceed the 3,000 MT CO₂e/yr SCAQMD threshold. The operation of the existing uses would generate about 29,000 metric tons of CO₂e per year (MT CO₂e/yr), while the AGSP would generate about 98,500 MT CO₂e/yr of GHG emissions. As such, given the mix of uses that would be developed within the vacant land in the planning area under the NPA2, it is anticipated that GHG emissions from the NPA2 and AGSP would be individually significant for both construction generated emissions and operationally generated emissions. Therefore, both alternatives would result in significant and unavoidable GHG impacts.

Hazards and Hazardous Materials

Implementation of the NPA2 and the AGSP could result in the expansion or development of facilities that could impact the health and safety of planning area residents, visitors, and employees. Existing uses currently utilize hazardous materials, whether household materials, or materials for commercial use, and must comply with local, State, and Federal laws pertaining to the handling of hazardous materials. The NPA2 would also result in greater intensity of development than exists at present. Unlike under the NPA2, the replacement of existing uses and the development of vacant land within the planning area would occur under the AGSP. Though there will be some adverse hazard and hazardous materials impacts as a result of implementing the AGSP, specific mitigation measures have been identified to reduce potential Project specific and cumulative (direct and indirect) effects to a less than significant impact level. New development that would occur under the NPA2 would be required to adhere to the same State, Federal, and local requirements pertaining to handling, storing, and transporting hazardous materials. As such, based on this information, each alternative would have similar impacts to hazards and hazardous materials impacts, and neither would result in significant thereof.

Hydrology and Water Quality

Under the NPA2, the existing uses would remain the same, with new uses planned for the vacant land within the planning area, which would result in a significant alteration of the area hydrology. The existing setting of the planning area is such that the existing stormwater collection systems do not have capacity to accommodate existing and future surface flows. This is because, in most cases, surface runoff flows travel along north-south roadway shoulders and enter into the City Creek By-Pass Channel through culverts with insufficient capacity. As such, under the NPA2, the vital infrastructure updates within the planning area would not be developed, and therefore the NPA2 could result in a significant impact related to stormwater runoff when compared to the AGSP. All other existing hydrological and water quality related within the planning area meet existing demands or are otherwise operating proficiently. The proposed AGSP will make unavoidable alterations in the Planning Area hydrology and the proposed uses have a potential to result in generation of new pollutants from the proposed urban/suburban environment that can degrade water quality. However, through implementation of mitigation all potential hydrology and water quality impacts can be controlled to a less than significant impact level. Furthermore, implementation of the AGSP would include modifications to the City Creek By-Pass channel to enable it to accommodate existing and future flows. Based on this information, the NPA2 has a potential to result in a significant impact to area hydrology, while the AGSP would not cause unavoidable significant hydrology or water quality impacts, and therefore, the AGSP would result in lesser hydrology and water quality impacts when compared to the NPA2.

Land Use and Planning

Under the NPA2, the existing underlying land uses would not change, and the vacant land is anticipated to be developed over a 50-year horizon. Under this alternative, many nonconforming uses would remain in place in areas that each of the two Cities have designated for alternative uses (for instance, residential uses within land designated for industrial use). As such, the NPA2 would, to a lesser extent than the AGSP, contribute to the Cities' plans for development that would accommodate future population growth. However, under the NPA2, land use and planning impacts would remain less than significant as there would be no direct conflict with the Cities' General Plans. The AGSP would also lead to urbanization of this area with a specific land use vision for the planning area. However, as discussed under the tables provided above, the existing

uses and existing land uses of the vacant land available are not congruous with that which is proposed by the AGSP. The AGSP would result in a change in character within the planning area, though it was determined that the proposed project would be consistent with the relevant goals of the SCAG RTP/SCS and each City's General Plan Land Use Element Goals. Under the AGSP, mitigation is required to establish a relocation program, and ensure that a community facilities district is established. This would not be required under the NPA2 because, under this alternative, residential uses would both be retained and developed, thus negating the relocation program requirement. Regardless, based on this information, neither the NPA2 nor the AGSP would result in significant land use and planning impacts.

Mineral Resources

Under the NPA2, no impacts to existing mineral resources would occur as the planning area and surrounding area do not contain any existing mineral developments. The AGSP planning area does not contain any identified potential for mineral resource development. Based on these data, neither the NPA2 nor the AGSP would result in significant mineral resource impacts.

Noise

Under the NPA2 operational and traffic noise would continue to be generated from existing uses within the planning area. Additionally, short-term construction noise, as well as operational and traffic noise would be generated by development that would occur on vacant land within the planning area. Under Subchapter 4.14, the DEIR compared the noise generated by the project to the existing noise levels generated by existing uses. In some cases, existing sensitive receptors experience ambient noise levels greater than that which is allowable by the Cities' noise standards; however, in all cases, the operations of the AGSP would increase noise levels beyond that which exists at present, and in most cases the AGSP would increase offsite traffic noise beyond that which exists at present. Under the AGSP, construction noise impacts, operation noise impacts, and vibration noise impacts are less than significant with the implementation of mitigation to reduce noise generated from these activities to the extent feasible. It is assumed that construction and operational noise, as well as vibration impacts would be minimized below significance thresholds under the NPA2. Under the NPA2, it is likely that new sources of off-site traffic noise would be generated, however, the generally, traffic noise generated by the NPA2 would be less than that which would be generated by the AGSP due to the types of uses that would be developed under this alternative (i.e., less industrial and business park uses would be developed under the NPA2, thereby resulting in less noise generated by heavy trucks using area roadways). However, under the AGSP and the NPA2 off-site transportation noise level increases at adjacent noise-sensitive residential homes would be considered significant and unavoidable. Therefore, noise impacts from the NPA would be less than that of the proposed AGSP, and implementation of the NPA2 would result in the avoidance of an unavoidable significant adverse off-site traffic noise impact.

Population and Housing

Under the NPA2, the existing population would remain in place within the planning area, and new opportunities for employment and housing development would occur, such that a resultant population of about 7,933 persons, and a possible indirect population of about 5,160, equal to a total of about 13,000 possible new residents. The NPA2 would ensure that the existing housing remains in place and would not require relocation as is planned and required to develop the AGSP. The proposed AGSP may also induce population growth, but, like the NPA2, the proposed

project will not induce substantial population growth that exceeds either local or regional projections. However, implementation of the AGSP would result in development that has the potential to displace existing persons and housing within the AGSP planning area. As such, mitigation is required to ensure that a Model/Conceptual Relocation Plan will be implemented to ensure that future developers provide adequate relocation resources to affected persons or households. However, the provision of adequate resources to facilitate relocation of persons that would be displaced by the AGSP, and the minimization of the potential for circumstances related to insufficient replacement housing through implementation of mitigation would minimize the potential for a significant adverse impact to occur related to the displacement of existing people or housing necessitating replacement housing elsewhere. Therefore, while the impacts to population and housing under the AGSP are greater than those under the NPA2 due to the mitigation required to minimize impacts to existing housing within the planning area, neither the NPA2 nor the AGSP would result in significant population and housing impacts.

Public Services

The NPA2 would result in the creation of additional demand for law enforcement and fire department services. The County Sheriff and County Fire Department response times would be impacted under both the NPA2 and the AGSP. The payment of established development impact fees for police and fire department facilities would occur under both the AGSP and the NPA2, which is needed to ensure adequate response times for future development. Under the existing conditions, existing uses are adequately served by the existing fire and police protection services; as such, both the NPA2 and AGSP would result in less than significant comparable demands for fire and police protection services.

The NPA2 would result in the creation of additional demand for school services, at an even greater intensity than that which would occur under the AGSP. The capacity of existing schools in the project area would be impacted as the population resulting from vacant land development under the NPA2 would demand these services. The AGSP would also create a new demand for these services through an increase in population that may arise from new employment opportunities. The San Bernardino City Unified School District (SBCUSD) funds construction and operation of new school facilities through school impact fees assessed on new developments and redevelopments that occur within the SBCUSD's area of influence, such a payment would also occur under the NPA2, which is needed to ensure capacity and school facilities future development. Given that both the NPA2 and AGSP would be required to pay mandatory school impact fees, neither alternative would result in significant impacts to school services, though the NPA2 would result in slightly greater impacts than those of the AGSP.

At present, there is a deficiency in the available parkland within the City of San Bernardino, though the City of Highland is meeting its parkland standard. The NPA2 would result in residential development, which would be required to contribute to development impact fees that would contribute to funding additional parkland within both Cities. Under both the AGSP and NPA2, the potential for new demand for parks through an increase in population that may arise either from new residential development (NPA2 only) or from new employment opportunities, would require additional parks to support this possible increase in population. As there is not currently a funding mechanism to obtain funds from Industrial and Commercial uses within either the City of Highland or City of San Bernardino, mitigation under the AGSP sets forth the framework from which funding for future parks can be obtained from future projects. Mitigation will preclude the AGSP from creating any unavoidable significant adverse impact to parks. Given the above, while the AGSP would create a new demand for parks, it would also mitigate for future park demand by requiring

future development to fund park and recreation facilities, which would enhance the availability of parks within both Cities. Alternatively, the NPA2 would also create a demand for parks, and while this alternative would contribute to park impact fees for residential development, it would not contribute to indirect park demand that may result from employment generated by new Commercial and Industrial uses, as no funding mechanism exists to mitigate for indirect demand resulting from these uses. Based on this information, neither the NPA2 nor the AGSP would result in significant impacts to parks or recreation facilities; however, the AGSP would result in slightly less impacts to parks as it would provide a funding mechanism to mitigate for indirect demand resulting from Commercial and Industrial uses within the area.

Recreation

Please refer to the discussion above under Public Services. The NPA2 and AGSP would both create a new demand for parks. The NPA2 would contribute development impact fees that would fund additional parkland within both Cities as a result of residential development that would occur under this alternative. The AGSP would mitigate for future park demand by requiring future development to fund park and recreation facilities, which would enhance the availability of parks within both Cities. The NPA would not contribute to indirect park demand that may result from employment generated by new Commercial and Industrial uses, as no funding mechanism exists to mitigate for indirect demand resulting from these uses. Based on this information, neither the NPA2 nor the AGSP would result in significant impacts to parks or recreation facilities; however, the AGSP would result in slightly less impacts to parks as it provides a funding mechanism to mitigate for indirect demand resulting from Commercial and Industrial uses within the area, the construction of which is not anticipated to cause significant impacts.

Transportation

Under the existing conditions, there are a few intersections that are operating at an unacceptable LOS, and these intersections would continue to operate at an unacceptable LOS under the NPA2. The AGSP would result in significant deficiencies on area roadways and area intersections, though these deficiencies would be mitigated below significance thresholds through payment of the Project's fair share to improve deficiencies. It is anticipated that NPA2 would also result in greater deficiencies in area roadways, resulting in significant impacts without mitigation requiring future development to contribute to fair share programs. However, development under the NPA2 would likely be required to adhere to similar mitigation as the AGSP. As a result, neither the NPA2 nor the AGSP would result in significant impacts to area levels of service.

However, the NPA2 would contribute to area vehicle miles travelled (VMT), though the overall VMT would be less than under the AGSP, as the existing trips from existing uses are already existing and accounted for under the existing conditions. Given the scale of the NPA2, it is still likely that development thereof would generate significant VMT beyond identified thresholds. Similarly, the AGSP would also generate significant VMT beyond identified thresholds with no mechanism for mitigation to minimize impacts available. Overall, both the AGSP and the NPA2 would contribute substantial additional traffic to area roadways compared to that which exists at present and would both result in significant and unavoidable VMT, as such, while the NPA2 would result in somewhat lesser impacts than the AGSP because it would only generate new sources of trips from development of 290 vacant acres, both would result in significant and unavoidable transportation impacts.

Tribal Cultural Resources

The tribal cultural resources information presented in this DEIR indicates the AGSP can be implemented without significant tribal cultural resource impacts. It is possible that subsurface tribal cultural resources could be discovered during construction, so mitigation has been identified to address these circumstances under Cultural Resources. Given that the NPA2 would result in similar development of vacant parcels, it is anticipated that these same circumstances would exist under this project alternative; however, under the NPA2, no impacts at potentially significant existing buildings would occur. Therefore, based on this information, the NPA2 would have less potential overall impact to tribal cultural resources than the proposed project, but neither alternative would have any significant adverse tribal cultural resource impacts.

Utilities and Service Systems

The NPA2 may result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects, as utilities required to serve new development may be required to be developed or relocated upon construction of the vacant land within the planning area. It is possible that development of reservoirs and wells required to serve the AGSP, and that would similarly be required to serve the NPA2, in the future may cause significant unavoidable adverse impacts due to the unknown locations in which these facilities may need to be developed. Based on this information, both the NPA2 and AGSP have the potential to result in significant impacts to the water distribution system in the planning area. Additionally, the AGSP proposes to modify the City Creek Bypass Channel, and therefore, it would result in the construction of new stormwater infrastructure and because the AGSP would both result in significant impacts, including significant construction and operational air quality and greenhouse gas impacts, development under the AGSP would also result in a significant and unavoidable potential impact to utilities and service systems. The NPA2 does not assume that any the project would require development of utilities and service systems other than installation of water distribution that would be developed by EVWD to ultimately serve the demand in the planning area. Thus, as discussed above, both the AGSP and the NPA2 would have significant and unavoidable impacts related to utilities and service systems, though impacts under the NPA2 would be generally lesser than those that would occur under the AGSP.

Wildfire

Under both the NPA2 and the AGSP, the location of existing and new facilities remains the same, and the planning area is located about 3 to 5 miles from the southern extension of the San Bernardino Mountain foothills. Therefore, the planning area is located well outside of any delineated high fire hazard severity zone. As such, the existing development as well as any new development under the AGSP or the NPA2 would not result in exposure of persons or structures to significant wildfire hazards. As such, neither the AGSP nor the NPA2 would result in significant wildfire impacts.

5.3.2 Summary of No Project Alternative with Vacant Land Developed under the Existing Land Use Designations

With respect to the NPA2, some of the project objectives are not attained.

- Economic Opportunities: *The NPA2 would result in economic opportunities, so this objective would be met under this alternative.*

- *Infrastructure: The NPA2 would not result in some vital infrastructure projects, such as the City Creek Bypass Channel improvements proposed under the AGSP. However, it is assumed that future development proposals would be required to otherwise improve area infrastructure.*
- *Distinctive Design and Appearance: The NPA2 would not develop a specific plan that would result in a cohesive design with landmark elements similar to other specific plan areas surrounding the Airport. As such, it would not meet this objective.*
- *Streetscape Improvements: Future development under this alternative would include streetscape improvements concurrent with development proposals. The NPA would therefore meet this objective.*
- *Mobility: It is assumed that future development proposals under the NPA2 would be required to otherwise improve area mobility, but as development proposals would be for individual projects, as opposed to the AGSP, which contemplates a specific plan for the entire planning area, the NPA2 would not meet this objective to the same degree as the AGSP.*
- *Integrated Planning: As with Mobility, as development proposals under the NPA2 would be for individual projects, as opposed to the AGSP, which contemplates a specific plan for the entire planning area, the NPA2 would not meet this objective as no planning coordination between the Cities of Highland and San Bernardino, IVDA, or San Manuel Band of Mission Indians would be anticipated.*

With respect to the significant unavoidable impacts of Project, the NPA2 would not avoid all of the unavoidable significant impacts that would result under the AGSP. Furthermore, the NPA2 would have a potential to result in significant impacts to stormwater where the AGSP would not. Additionally, the NPA2 would not result in greater buffers between the Airport, and industrial and business park uses from nearby residences, thereby minimizing future health risk at sensitive receptors from heavy trucks utilizing area roadways—such as 5th Street, 3rd Street, and Victoria Avenue. Ultimately, the AGSP and NPA2 would result in similar levels of significance for many issues, though because the NPA2 would only redevelop vacant land, most impacts, even those that are significant and unavoidable, are lesser than those that would occur under the AGSP. The exception—stormwater infrastructure—is discussed in detail above.

5.4 DISCUSSION OF ALTERNATIVES TO THE PROPOSED PROJECT

Of the three alternatives considered, the No Project Alternative (NPA) has been determined to be the environmentally superior alternative. Refer to the comparison of alternatives in the matrix provided in Table 5-3 below. Section 15126.6(e)(2) indicates that where the no project alternative is environmentally superior, “the DEIR shall also identify an environmentally superior alternative among the other alternatives.” Therefore, beyond the NPA the NPA2 has been determined to be the environmentally superior alternative among the other alternatives. This is because though long-term impacts under this alternative would continue to be significant, short-term impacts, such as construction related GHG and Air Quality Emissions, would be able to mitigated to a level of less than significant. Furthermore, overall impacts would be lessened when compared to the AGSP because the existing development would not be replaced and redeveloped with new uses under the NPA2. However, the NPA2 would not eliminate unavoidable significant impacts under any issue—except the issue of Noise—for which the AGSP would result in significant impacts, and would result in a significant impact under hydrology because the stormwater infrastructure required to meet new demands on the stormwater collection system would not be installed.

The NPA was evaluated and also determined to be an environmentally superior alternative to the proposed Project. It is also unlikely that the NPA is feasible, since it would not meet the project objectives. Additionally, the NPA would only avoid some of the unavoidable significant impacts of the Project, but would have a potential to result in significant impacts to stormwater where the AGSP would not. No revenues from new development would be generated, thereby minimizing the potential for the IVDA, City of Highland, and City of San Bernardino to revitalize this area. Furthermore, the NPA would not result in redevelopment of this area, as the AGSP objective of creating greater buffers between the Airport, and industrial and business park uses from nearby residences, thereby minimizing future health risk at sensitive receptors from heavy trucks utilizing area roadways—such as 5th Street, 3rd Street, and Victoria Avenue. Additionally, the NPA would not promote much needed job growth within the area, and would not create economic growth within the Cities of San Bernardino and Highland.

**Table 5-3
 TABULAR COMPARISON OF PROJECT ALTERNATIVES**

	<i>Would the Project/Alternative Result in Significant Adverse Impacts to the Resource Issues of ...?</i>				Which Alternative is Environmentally Superior?
	AGSP	No Project Alternative (NPA)	No Project Alternative (NPA2)	???	
Aesthetics	No	No	No		NPA
Agricultural	No	No	No		Alternatives are equal
Air Quality	Yes	No	Yes		NPA
Biological Resources	No	No	No		NPA
Cultural Resources	No	No	No		NPA
Energy	No	No	No		NPA
Geology and Soils	No	No	No		NPA
Greenhouse Gas / Climate Change	Yes	No	Yes		NPA
Hazards and Hazardous Materials	No	No	No		NPA
Hydrology and Water Quality	No	Yes	Yes		AGSP
Land Use / Planning	No	No	No		NPA
Mineral Resources	No	No	No		Alternatives are equal
Noise	Yes	No	No		NPA/NPA2
Population / Housing	No	No	No		NPA
Public Services	No	No	No		NPA
Recreation	No	No	No		NPA
Transportation / Traffic	Yes	No	Yes		NPA
Tribal Cultural Resources	No	No	No		NPA
Utilities and Service Systems	Yes	No	Yes		NPA
Wildfire	No	No	No		Alternatives are equal
<i>Would Meet Project Objectives?</i>	Yes	No	No		-

CHAPTER 6 – TOPICAL ISSUES

All Chapter 6 figures are located at the end of this chapter, not immediately following their reference in the text.

Each environmental document contains a certain amount of duplication to ensure that information is conveyed to the decision-makers and interested members of the public in an organized fashion. Chapter 4 contains a detailed discussion of environmental effects that may result from implementing the proposed project. This includes a discussion of project specific and cumulative environmental impacts to the extent feasible, as well as discussion of unavoidable adverse impacts for each topic evaluated in the EIR. This section of the EIR combines three “topical issues” that are mandated in the State CEQA Guidelines Section 15126. Section 15126 states: “The subjects listed below shall be discussed...preferably in separate sections or paragraphs of the EIR.” These sections are: (c) Significant Irreversible Environmental Changes Which Would be Involved in the Proposed Project Should it be Implemented and (d) Growth-Inducing Impact of the Proposed Project. Section 15130 requires a discussion of Cumulative Impacts. Because of the importance of this topic, a summary of cumulative effects is included in this Chapter. The other major topics required in an EIR (Significant Environmental Effects; Unavoidable Significant Environmental Effects; and Mitigation Measures) are specifically addressed in Chapter 4 of this EIR. Alternatives to the proposed project are evaluated in Chapter 5.

6.1 GROWTH-INDUCING IMPACTS

CEQA requires a discussion of the ways in which a project could be growth inducing. (Pub. Resources Code, §21100, subd.(b)(5); CEQA Guidelines, §§15126, subd.(d), 15126.2, subd.(d)) The CEQA Guidelines identify a project as growth-inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Growth inducement consists of causing growth beyond that which is anticipated in a community’s General Plan land use designations or an agency’s expected future growth (such as an Urban Water Management Plan). Under CEQA, growth inducement is not considered necessarily detrimental or beneficial, but an analysis of this topic is required. (CEQA Guidelines §15126.2, subd.(d))

A project may indirectly induce growth by reducing or removing barriers to growth, or by creating a condition that attracts additional population or new economic activity. Projects that induce growth directly would include commercial or industrial development that hire new employees and residential development that provides housing in excess of planned growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in an area. Growth inducement may also occur if a project provides infrastructure or service capacity that accommodates growth beyond the levels currently permitted by local or regional land use plans. However, a project’s potential to induce growth does not automatically result in growth. Growth only happens when the private or public sector responds to a change in the underlying development potential of an area with capital investment.

Typically, significant growth is induced in one of three ways. In the first instance, a project developed in an isolated area may bring sufficient urban infrastructure to cause new or additional development pressure on the intervening and surrounding land. This type of induced growth leads to conversion of adjacent acreage to higher intensity uses than originally envisioned, either unexpectedly or through accelerated development. This conversion occurs because the adjacent land becomes more suitable for development and, hence, more valuable because of the availability of the new infrastructure. This type of growth inducement is termed “leap frog” or

“premature” development because it creates an island of higher intensity developed land within a larger area of lower intensity land use.

The second type of significant growth inducement is caused when development of a large-scale project, relative to the surrounding community or area, produces a “multiplier effect” resulting in substantial indirect community growth, although not necessarily adjacent to the development site or of the same type of use as the project itself. This type of stimulus to community growth is typified by the development of major destination facilities, such as Disney World near Orlando, Florida, or around military facilities, such as the Marine Corps Air Ground Combat Center, near Twentynine Palms.

A third, and more subtle type of significant growth inducement occurs when land use plans are established that create a potential for growth because the available land and the land uses permitted result in the attraction of new development. This type of growth inducement is also attributed to other plans developed to provide the infrastructure necessary to meet the land use objectives, or community vision, contained in the governing land use agency’s general plan. In this type of growth inducement, the ultimate vision of future growth and development within a project area is typically established in a city General Plan or other comprehensive land use plan. The net effect of a General Plan’s land use designations is to establish a set of expectations regarding future land use and growth that may or may not occur in the future, depending upon the actual demand and other circumstances when development is proposed. Thus, a plan may assign an area 100,000 square feet of commercial space, but if actual development does not ultimately generate demand for this much retail square footage, it will never be established.

Under present circumstances the proposed AGSP envisions replacing the existing mix of uses—which presently includes commercial, industrial, residential, vacant land, and public facility uses—within the Planning Area with approximately 9.2 million SF of Mixed Use Business Park. To accomplish this land use transition within the AGSP would require development of up to 225 acres of existing occupied acreage and conversion of about 243 acres¹ of vacant land to Mixed Use Business Park. The AGSP Planning Area currently houses an estimated 2,616 persons within an estimated 760 residential uses. As part of the AGSP, these residential units would eventually be removed and replaced with the mix of industrial/business park uses allowed by the AGSP. As such, the proposed project will be required to assist with relocation of the existing population within the Planning Area, thereby resulting in a loss of population specific to this Planning Area. While the project itself is anticipated to replace the residential uses within the Planning Area, the AGSP also has the potential to generate up to about 4,610 new jobs within the AGSP Planning Area (5,097 project generated positions – 487 existing positions = 4,610 new job positions).

The purpose of developing a specific plan for the Airport Gateway Planning Area is to align local and regional development objectives and implementation efforts for future land use, mobility, and economic development efforts in the multi-jurisdictional plan area.

As stated above, the first type of significant growth occurs when a project developed in an isolated area may bring sufficient urban infrastructure to cause new or additional development pressure on the intervening and surrounding land. In their recently prepared RTP/SCS, SCAG forecasts that the population of the City of Highland will grow from 54,200 (2016) to 68,900 by 2045, an

¹ Vacant land includes some acreage that should be dedicated to ROW and floodway because some Assessor’s Parcel Numbers (APNs) are not broken down to exclude ROW and floodway acreage that may be adjacent to an existing use. As such, the actual vacant land to be developed by the project has been determined to be 243 acres, even though Table 3-1 of the Chapter 3, Project Description indicates 290.21 acres are vacant.

increase of 27.1% over the next 25 years. While, for the City of San Bernardino, SCAG forecasts that the population of the City will grow from 216,300 (2016) to 230,500 by 2045, an increase of 6.56% over the next 25 years. These cities have a combined population of about 270,500 residents within an area encompassing a combined approximately 80 square miles, which is the equivalent of about 3,381 persons per square mile. Given the data presented above, the proposed project can be defined as being located in an urban area, not an isolated area. However, in the context of the proposed AGSP Planning Area, more than half of the area available for development within the AGSP is vacant and undeveloped. It stands to reason that, at buildout of the AGSP Planning Area, this project would bring sufficient infrastructure to cause new or additional development on the intervening and surrounding land. In fact, as described in the Utilities discussion, much of the requisite infrastructure already exists within the AGSP project area and simply requires modest expansion to meet future AGSP development. However, as the number of employees in the AGSP Planning Area grows, these employees would seek shopping, entertainment, and other economic opportunities in the surrounding area. This would facilitate economic goods and services and could, therefore, encourage the creation of new businesses and/or the expansion of existing businesses to address these economic needs. However, this increase would not create substantial growth inducement because growth could be accommodated within regional and local projections by the SCAG RTP/SCS, and a substantial number of jobs are expected to be filled by the local workforce. Thus, the proposed AGSP would not have a potential to result in this type of growth inducement.

As previously stated, a second type of significant growth inducement is caused when development of a large-scale project or program, relative to the surrounding community or area, produces a “multiplier effect” resulting in substantial indirect community growth. As stated above, the AGSP Planning Area currently houses an estimated 2,616 persons, and as part of the AGSP, these residential units would eventually be replaced with the mix of industrial/business park uses proposed under the AGSP. However, while the project itself is anticipated to replace the residential uses within the Planning Area, the AGSP also has the potential to generate up to about 4,610 new jobs within the AGSP Planning Area (5,097 project generated positions – 487 existing positions = 4,610 new job positions). Based on the above, the increase in population as a result of implementation of the proposed project has a potential to be indirectly growth inducing. Based on the populations of the Cities of Highland and San Bernardino, above, there is presently a 77,901 person gap between the combined 2016 populations and buildout for each City. Given the 77,901 person gap between the combined 2016 population and the projected build out population for the area, the proposed project may induce population growth, but the proposed project is not forecast induce substantial population growth that exceeds either local or regional projections.

Additionally, the City of San Bernardino the current unemployment rate is 4.9%, or 4,300 persons. Within the City of Highland, the current unemployment rate is 4%, equal to 1,000 persons. Therefore, at present there are about 5,300 persons within the labor force who are seeking work within the two cities. Therefore, the addition of 4,610 new jobs would provide job opportunities for persons seeking to be employed in the project area, with an even greater job seeking population in the region as a whole. Therefore, though the AGSP would create job growth, which may lead to some community growth within the Cities of Highland and San Bernardino, as well as the surrounding area, the project would not be substantially growth inducing.

A third type of significant growth inducement occurs when land use plans are established that create a potential for growth because the available land and the land uses permitted result in the attraction of new development. The project does propose a new specific plan for the AGSP Planning Area. This would result in land use changes, though the predominant changes from one

land use to an incongruous land use (i.e. Residential land use to Mixed Use Business Park) would occur within the City of San Bernardino. The City of Highland has designated a majority of the AGSP Planning Area for Business Park and Industrial use, which are comparable uses to that which is proposed under the AGSP. Thus, the growth projections derived from the underlying land use plans within the region for the AGSP Planning Area would not be substantially changed by the implementation of the proposed AGSP. It should be noted that the existing uses within the AGSP Planning Area have not yet transitioned entirely to conform to the underlying land use designations. This explains why the land use estimates shown in Table 3-1 of the Project Description depict that the AGSP Planning Area presently contains 225 acres of existing occupied acreage including about 128 acres of occupied residential uses (equal to about 760 residences).

Although the general plan amendments required to adopt the proposed AGSP itself may be considered a precedent-setting action, the impacts of subsequent similar actions would require environmental analysis and associated mitigation to ensure that such subsequent impacts would not significantly affect the environment. Pressures to develop other land in the surrounding area would derive from regional economic conditions and market demands for housing, commercial, and industrial land uses that are not directly or indirectly influenced by zoning actions on a particular Planning Area. Therefore, approval of the project would not involve a precedent-setting action that could be applied to the surrounding properties and thereby encourage or facilitate growth that would not otherwise occur. As such, the project would not be growth inducing as a result of the establishment of a new or change in an existing land use plan.

The Cities of Highland and San Bernardino have partnered with IVDA on the creation of the proposed AGSP, expressing support for the transition of the Planning Area to a Mixed Use Business Park land use that would allow industrial, technical business park, commercial, and related uses (described in detail in the AGSP itself).

In summary, implementation of the proposed project **would not** result in the extension of significant new urban infrastructure to an isolated area. The proposed project **would** indirectly induce population growth through the creation of jobs, which may lead to some community growth within the Cities of Highland and San Bernardino, as well as the surrounding area. The proposed project **would not** have the potential to create a “multiplier effect” that has not already been provided for in the local land use planning documents and that could induce growth beyond that anticipated in those planning documents. Finally, the project **would not** create or change a land use plan that might cause a potential for growth because the available land and the land uses permitted result in the attraction of new development. Though the project would create job growth, the amount in which the project would indirectly induce growth **is not considered to be significant**.

6.2 CUMULATIVE IMPACTS

Scoping Meeting Comments

The following comments from the public regarding cumulative impacts were received during the NOP comment period or at the Scoping Meeting:

Scoping Meeting Speaker #7: The speaker sits on the Jurupa Valley Planning Commission and asks what projects are occurring in the area outside of the specific plan? The speaker asks the Project Team to look at cumulative impacts of implementing this project along with other cumulative projects.

Response: The existing projects in process maps and project list are provided as Figures 6.2-1 through 6.2-3. Cumulative impacts are analyzed in each of the issue topics under Chapter 4, and are also specifically discussed in Chapter 6, Topical Issues, under Subsection 6.2, Cumulative Impacts. Here you will find a discussion of each topic's cumulative impacts. The AGSP would contribute to significant cumulative Air Quality, Greenhouse Gas, Noise, and Transportation impacts.

Cumulative Impact Analysis

The intent of a cumulative impact evaluation is to provide the public and decision-makers with an understanding of a given project's contribution to area-wide or community environmental impacts when added to other development occurring in the region. Typically, cumulative impacts are discussed in relation to a list of past, present, and reasonably anticipated projects or in relation to broad growth projections and related area-wide impacts identified in general (City-wide General Plan) or regional plans (such as, SCAQMD's Air Quality Management Plan, AQMP) refer to Section 15130(b) of the State CEQA Guidelines). For the proposed AGSP, cumulative impacts are evaluated in the context of both types of cumulative impact forecasts. The cumulative impact projections were made using regional planning documents and site-specific technical studies. For example, the Traffic Impact Analysis evaluation—which is provided as Appendix 11a of Volume 2 to this DPEIR—is based on a list of projects compiled by the Cities of Highland and San Bernardino and traffic consultant. On the other hand, air quality cumulative impacts are based on regional plans, such as the AQMP. Cumulative impacts are discussed in each issue subchapter of Chapter 4 in this document.

The following is a summary of cumulative impacts that are forecast to occur if the proposed project is implemented as defined in the Project Description. If any future development project under the AGSP results in a potential to create a cumulatively considerable adverse impact for an environmental issue, a second-tier CEQA evaluation will be compiled and processed. This information is a restatement of the cumulative impacts from Chapter 4.

Aesthetics: Cumulative impacts are those impacts of a proposed project when combined with other projects that may affect the same resource. The AGSP addresses an area of approximately 678 acres. Within this area it is forecast that the existing visual setting will transition from the mix of undeveloped land and older residential/industrial development to an area of light industrial warehouses, offices, commercial development, and business park uses. Figures 4.2-3 through 4.2-11 and Figures 4.2-12 through 4.2-14 illustrate these different visual settings. Although there will be a change in the developed visual setting from implementing the AGSP, this change generally reflects the existing land use designations for the project area and no significant aesthetic impacts are forecast to result from the AGSP with implementation of mitigation measures. Thus, the future visual setting of the project area will reflect the expected visual setting as envisioned by both city's General Plans, with future modifications associated with the AGSP.

There have been recent projects implemented within the AGSP project area (refer to Figures 6.2-1 and 6.2-2). As indicated in the preceding text, three new light-industrial warehouses have been constructed in the project area. In addition, a new light/industrial warehouse has been completed just south of 3rd Street (within the SBIA and west of Victoria Avenue, Amazon Air Regional Air Hub) and another large light/industrial warehouse is being developed (the Landing) by the San Manuel Band of Mission Indians on their property east of Victoria Avenue and south of 3rd Street. Finally, East Valley Water District is developing the Sterling Natural Resources Center (SNRC, a new wastewater treatment plant and community education facility) at 6th Street

and Del Rosa Drive. All of these facilities have been developed in a manner consistent with the change in visual setting forecast to occur from implementing the AGSP.

Based on the anticipated change in visual setting within the AGSP and those other projects being developed independently in the general area, the potential aesthetic impacts are determined to less than cumulatively considerable. No cumulatively significant aesthetic impacts will result from implementing the AGSP and other development in the project area.

Agricultural and Forestry Resources: While cumulative development within the region may result in cumulatively significant impacts related to loss of and impacts to agricultural and forestry resources, the cumulative analysis of each Agriculture and Forestry Resources issue evaluated in Subchapter 4.3 of the DEIR determined that the proposed project would not result in a considerable contribution to cumulative impacts to agricultural and forestry resources within the Region. There are no agriculture or forestry resources located within the AGSP's area of potential impact. Therefore, the proposed AGSP has a less than significant potential to result in a cumulatively considerable contribution to any agricultural and forestry resources impacts.

Air Quality: As previously shown in Table 4.4-4, the CAAQS designate the project site as nonattainment for O₃, PM₁₀, and PM_{2.5} while the NAAQS designates the project site as nonattainment for O₃ and PM_{2.5}.

The SCAQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*. In this report the SCAQMD clearly states (Page D-3):

"...the SCAQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for TAC emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.

Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which SCAB is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable.

Construction Impacts

Project construction-source air pollutant emissions would exceed the SCAQMD regional thresholds for emissions of NO_x and PM₁₀. Per SCAQMD significance guidance, NO_x impacts are considered cumulatively significant and would persist over the life of the project. NO_x emissions are ozone precursors and would therefore have the potential to contribute considerably to existing ozone non-attainment conditions within the SCAB. As such, project construction-source emissions would be considered significant on a project-specific and cumulative basis.

Operational Impacts

Project operational-source NO_x and PM₁₀ emissions will exceed applicable SCAQMD regional thresholds. Per SCAQMD significance guidance, these impacts at the project level are also considered cumulatively significant and would persist over the life of the project. NO_x emissions are ozone precursors and would therefore contribute considerably to existing ozone non-attainment conditions within the SCAB. This is a cumulatively significant impact persisting over the life of the project based on presently available motor vehicles.

Biological Resources: Development of the proposed project will contribute to the change of the general area with an intensification of development substantially greater than that which presently exists on the site. The proposed project would contribute to the reduction in burrowing owl habitat and raptor foraging habitat, but relative to the intensity of existing development in the Planning Area and the extent of such foraging habitat in the region (Santa Ana River and City Creek floodplains) this loss is not considered cumulatively considerable. The proposed project will not cause significant adverse cumulative effects related to the reduction of sensitive vegetation communities or wetland/riparian habitat present in the general area because there are no such communities located within the Planning Area and the project can be implemented consistent existing regulations and with mitigation as outlined in the preceding section. Based on compliance with the required mitigation and the overall lack of any habitat to support sensitive species or a substantial wildlife population, the proposed project will not result in significant adverse biology resource impacts that rise to a cumulatively considerable level.

Cultural Resources: As the project area continues to develop with projected growth, new industrial mixed-use development is forecast to occur. The AGSP project area may contain many historical and archaeological resources that, in many cases, have not been well documented or recorded. Thus, there is the potential for future cumulative development projects in the project area to destroy known or unknown historical and archaeological resources or resource sites.

The potential construction impacts of a project, in combination with other projects as a result of growth in the area, could contribute to a cumulatively significant impact specific historical and archaeological resources. Therefore, the project's cumulative effects to specific historical and/or archaeological resources could be cumulatively considerable and cumulative impacts would be potentially significant. However, implementation of MMs **CUL-1** through **CUL-3** would minimize the proposed projects contribution to cumulative impacts to a level of less than significant.

Energy: The proposed AGSP would contribute to the cumulative use of energy within San Bernardino Valley region. The region is anticipating moderate population growth and associated housing, commercial, and industrial developments that would cumulatively increase the demand for energy, including that which would be demanded by the proposed project. While the AGSP aims at reducing overall energy consumption from the proposed development, because it would

result in greater intensity of development than that which exists at present within the area, it would increase the energy demands over the approximately 20-year horizon in which AGSP would be implemented. Through the extensive mitigation provided under the issues of Air Quality and Greenhouse Gas requiring the construction of solar or other clean energy technology, provision of electric vehicle (EV) charging stations, utilization of electric equipment, future development to meet Green Building Code Standards, utilization of high efficiency lighting, etc. These measures would minimize the AGSP's energy footprint over the 20-year horizon and beyond such that the proposed project's cumulative energy demand would be less than significant.

Geology and Soils: Future cumulative development may experience significant impacts associated with geotechnical constraints within the region, including impacting resources such as paleontological resources, that occur below ground. Similarly, development of the AGSP would be affected by geotechnical constraints within the AGSP Planning Area. Development under the AGSP is not forecast to cause changes in geology or soils or the constraints affecting the project area that cannot be fully mitigated. Therefore, with the implementation of MMs **GEO-1** through **GEO-3**, and adherence to the regulatory requirement, the proposed AGSP would have a less than significant contribution to cumulatively considerable geology or soils impacts within the region. Project soil and geology impacts are less than significant, or less than cumulatively considerable.

Greenhouse Gases/Global Climate Change: Impacts related to GHG emissions are, by definition, cumulative impacts because they affect the worldwide accumulation of GHGs in the atmosphere. Because the effects of climate change are currently occurring, the cumulative worldwide and statewide effects of GHG emissions are significant. For the analysis of impacts related to GHG emissions, CEQA focuses on whether the incremental contribution of a proposed project is cumulatively considerable and thus significant in and of itself. In 2018, California greenhouse gas emissions totaled 425 million metric tons CO₂e^{2,3}. The proposed project will generate approximately 69,512.06 metric tons CO₂e per year, or about 0.0163558% of this amount. However, the proposed AGSP may contribute to global climate change through an incremental contribution of greenhouse gases. Even with implementation of the recommended Air Quality and GHG mitigation measures identified herein or within Subchapter 4.4, Air Quality, of this EIR, implementation of the AGSP exceeds the SCAQMD recommended numeric threshold of 10,000 MTCO₂e/yr. Project GHG impacts are mitigated to the greatest extent feasible, but the project will still contribute to global climate change through a cumulatively considerable contribution of greenhouse gases. As such, the proposed project would result in a cumulatively considerable/significant adverse GHG Emission impact.

Hazards and Hazardous Materials: The AGSP project is not forecast to make a cumulatively considerable contribution to on- of off-site hazards and hazardous material issues. For those potential hazards or hazardous material issues with a potential for direct significant impact within the project area, mitigation measures have been provided that can reduce the project's contribution to cumulative impacts to a less will be required to reduce site specific and ultimately cumulative impacts to a less than significant level. Because most of the project impacts contribute to cumulative demand for emergency services or protection of the public from hazards, all of the above measures shall be implemented. Because the project area is generally free of hazards and hazardous contamination, the proposed project will not contribute to a cumulatively considerable significant impact to these issues.

² <https://www.arb.ca.gov/cc/inventory/data/data.htm>

³ https://www3.arb.ca.gov/cc/inventory/pubs/reports/2000_2018/ghg_inventory_trends_00-18.pdf

Hydrology and Water Quality: The proposed project has been evaluated as having a less than significant potential to cause significant flood hazards and a less than significant potential to substantially degrade water quality onsite and downstream with implementation of the preceding four mitigation measures. Due to the small size of the watershed that contributes to the City Creek Bypass channel; the fact that all other new projects in the watershed will have to comply with SWPPP and WQMP requirements of the TGM; and the fact that the AGSP constitutes the majority of acreage in the watershed, the potential for significant hydrology or water quality impacts is to less than significant. With implementation of the proposed stormwater management design, as outlined in the Preliminary Hydrology Study and the above mitigation measures, future stormwater runoff after development of the project site is not forecast to make a cumulatively considerable contribution to downstream flood hazards and/or water quality degradation in the Santa Ana River Watershed. This conclusion is based on the findings that the proposed mitigation and design measures will not substantially increase runoff from the AGSP project area and will provide adequate attenuation of water pollutants in runoff from this project area so as not to make a cumulatively considerable contribution to the runoff volume or water pollution within the local watershed and more broadly within the downstream Santa Ana River channel. Cumulative hydrology and water quality impacts are less than significant.

Land Use and Planning: Development of the proposed project will result in substantial change of the land use on the vacant sites, but the changes are generally consistent with the land use and planning designations of the existing General Plans which establish the cumulative land use framework for the cities of Highland and San Bernardino. Approval of the proposed project will cause an intensification of development greater than that which presently occurs within the AGSP project area, but not generally greater than that which has been identified for development in the existing General Plans. The proposed project design includes buffers around boundary portions of the project area which abut adjacent lower intensity uses. A total of three mitigation measures will be implemented to offset potentially significant adverse impacts on land uses. The proposed project would contribute to implementation of the General Plan vision for the project area. No significant adverse impacts related to land use and planning resources and issues have been identified, and no cumulatively considerable and unavoidable impact is forecast to occur if the proposed project is implemented as proposed in the AGSP with area-wide mitigation measures.

Mineral Resources: The Plan Area does not contain any existing mineral development nor any identified potential for mineral resource development. Development of the proposed project will not cause any adverse impacts to mineral resources or values. As a result, the proposed project has no potential to contribute to any cumulative loss of mineral resources or values. The project will have no cumulative adverse impact to mineral resources.

Noise: *Cumulative Measures: Implementation of MMs **NOI-2 through NOI-9** is required.*

Based on the impact significance criteria described in Section 4.14.7, the project contributions to the cumulative noise environment are as follows. Construction activities are expected to create temporary and intermittent high-level noise conditions at receivers surrounding the project site. Since neither the General Plan Noise Elements or Municipal Codes for the Cities of San Bernardino and Highland establish numeric maximum acceptable construction source noise levels at potentially affected receivers, a numerical construction threshold based on the FTA Transit Noise and Vibration Impact Assessment Manual is used for analysis of daytime construction impacts, and impacts thereof were determined to be **less than significant with mitigation incorporated**. Based on the City of San Bernardino vibration standards, the unmitigated project construction vibration levels will satisfy the 0.7 in/sec RMS threshold at all of

the nearby sensitive receiver locations. Therefore, the vibration impacts due to project construction are considered **less than significant**. Furthermore, the analysis shows that the unmitigated project-related operational noise levels will satisfy the City of San Bernardino and City of Highland exterior noise level standards at the nearby sensitive receiver locations in the project study area through the implementation of mitigation identified above (measures **NOI-2** through **NOI-9**), and therefore operational impacts are considered **less than significant**.

The off-site traffic noise level increase at noise-sensitive land uses is considered a **significant cumulative impact** as a result of project-related off-site traffic noise level increases. Mitigation is available to reduce the offsite traffic noise impact, but it cannot be effectively enforced on private property. Consequently, the project's contribution to traffic noise impacts on the surrounding land uses may be cumulatively considerable and significant over the long term.

Population and Housing: Cumulative impacts in the context of population, housing, and employment are analyzed in terms of consistency with SCAG growth assumptions for San Bernardino County. Buildout of the AGSP would contribute to regional growth with respect to population, housing, and employment, and impacts thereof are discussed in terms of local projections under Section 4.15.6, above. In the context of region, SCAG projects that the population of San Bernardino County is anticipated to grow to 2,815,000 persons by 2045, with the 2020 population at about 2,141,000⁴. SCAG projects that by 2045, employment within the County will total 1,064,000 jobs, growing from 834,000 jobs in 2020. Additionally, SCAG projects that the number of households residing in the County would be 875,000 by 2045, growing from 668,000 in 2020.

Employment

The proposed AGSP would contribute to cumulative employment within the region through the provision of 5,097 (4,610 new jobs) jobs at buildout of the specific plan. This would account for approximately 2.2% of the anticipated job growth within the County between 2020 and 2045. As such, the proposed AGSP's contribution to regional employment would be beneficial to meeting long-term employment demand as a result of regional population growth, and therefore cumulative employment impacts would be less than significant.

Population

This EIR assumes that the creation of the AGSP would result in the employment of up to 5,097 persons, which, in turn, could result in an increase in population within the area by about 5,097 persons over the time period in which the development proposed as part of the AGSP occurs. In the context of the regional population, the maximum potential growth in population from employment related to the proposed project would result in approximately 0.24% increase over the 2020 County population ($[4,610 \div 2,141,000] \times 100 = 0.22\%$), and would make up approximately 0.18% of the anticipated 2045 County population ($[4,610 \div 2,815,000] \times 100 = 0.16\%$). As such, given that the proposed AGSP would result a minimal less than one percent increase in regional population between 2020 and 2045, and that this increase falls well within the forecast population growth for the region within this period, cumulative population impacts attributable to the AGSP would be less than significant.

⁴ https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_demographics-and-growth-forecast.pdf?1606001579

Households

The proposed AGSP would result in the displacement of 760 households located within the AGSP Planning Area to be relocated within the local or regional area. In the regional context, the proposed project would result in the elimination of 760 dwelling units, or a decrease of about 0.37% when compared to the 207,000 anticipated household growth within the County between 2020 and 2045. Given that the proposed AGSP would not enable displacement of households located within the Planning Area without adequate relocation resources, or without the completion of a second-tier CEQA documentation analyzing the impacts on displaced households or persons, and given the minimal less than one percent decrease in cumulative forecasted dwelling units between 2020 and 2045 as a result of AGSP implementation, the project's cumulative impacts to housing are less than significant with implementation of MMs **PH-1** through **PH-3**.

Public Services: The proposed AGSP would not result in a cumulatively considerable contribution to population growth within the region, and as such, it would not substantially increase demand for public services.

Fire Protection

Development associated with implementation of the proposed AGSP would result in additional demands on existing fire services and equipment. New development and redevelopment of existing parcels associated with the proposed AGSP would be required to comply with all applicable fire code and ordinance requirements for construction, access, water mains, fire flow, and hydrants and individual projects would be reviewed by the SBCFD and the Highland Fire Department to determine the specific fire requirements applicable to a specific development and to ensure compliance with these requirements. Additionally, future development would be reviewed by each City and this would be required to meet the City of San Bernardino or City of Highland General Plan goals and policies that enforce requirements pertaining to ensuring adequate fire protection is available within each City. It also ensures that development will meet applicable standards to further minimize risk pertaining to fire hazards. Funding for expanded fire protection services is assessed as development within the City occurs and over the long term through payment of sales and property taxes. Funding for these services is assessed through DIF on new developments within the Cities of Highland and San Bernardino and through collection of property taxes as contributions to the City of San Bernardino or City of Highland General Funds. Collection of these funds would ensure that new development would not reduce the appropriate ratio of staffing, response times, or existing service levels within the AGSP planning area. Therefore, implementation of the proposed General Plan would result in less than significant impacts to fire protection and emergency services. As such, implementation of the proposed AGSP would not result in cumulatively considerable fire protection impacts.

Police Protection

Development associated with implementation of the proposed AGSP would result in additional demands on existing police protection services and equipment. New development and redevelopment of existing parcels associated with the proposed AGSP would be required to meet the City of San Bernardino or City of Highland General Plan goals and policies (listed above) that enforce requirements pertaining to ensuring adequate police protection is available within each City and ensuring the development meets applicable standards to further minimize risk pertaining to incidents requiring the police and to ensure that future projects meet the general plan standards pertaining to provision of adequate building orientation to facilitate police surveillance. Funding

for expanded police protection services is assessed as development within the City occurs. Funding for these services is assessed through DIFs on new developments within the Cities of Highland and San Bernardino and through collection of future increased property and sales taxes as contributions to the City of San Bernardino or City of Highland General Funds. Collection of these funds would ensure that new development would not reduce the staffing, response times, or existing service levels within the AGSP planning area. Therefore, implementation of development in support of the proposed General Plan would result in less than significant impacts to police protection services. As such, implementation of the proposed AGSP would not result in cumulatively considerable police protection impacts.

Schools

Implementation of the proposed AGSP would result in the development and redevelopment of the AGSP planning area, which has the potential to indirectly generate new students that would be served by area schools and the SBCUSD as a result of new employment opportunities within the District's jurisdiction. Individual development projects would be required to pay the School Impact Fees based on the type and size of development proposed. Pursuant to SB 50, payment of fees to the appropriate school district is considered full mitigation for project impacts, including impacts related to the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives for schools. Furthermore, if new school facilities would need to be constructed at a future date to accommodate increased demand on schools, further environmental review separate from this EIR would be required as project-specific plans are developed to determine which school districts and school-specific development proposals would result in significant impacts. All new school or other educational development would be subject to the District's environmental review process which includes project-specific environmental review under CEQA. As such, based on the data compiled herein, and adherence to the goals and policies outlined in the City of San Bernardino and Highland General Plans, cumulative school facility impacts would be considered less than significant.

Library and Other Public Services

Implementation of the proposed AGSP would result in the development and redevelopment of the AGSP planning area, and as such, has the potential to result in an increase in population within the two cities due to expanded development that could result in employment growth and potential population growth. Individual development projects within the AGSP and within the Cities of Highland and San Bernardino would contribute property and sales tax to both of the Cities, which would offset impacts to library, cultural, and other public services; while in both of the Cities, future residential projects—of which none are anticipated to be developed within the AGSP planning area—are required to pay development impact fees directed to library services based on the type and size of development proposed. Therefore, individual project applicants would be required to pay the statutory fees, so that library, cultural, and other public services can be expanded to accommodate population growth. Therefore, development of the proposed project and related cumulative projects would not result in significant cumulative impacts in regards to library services and facilities, cultural or other public services.

Recreation and Parks: Implementation of the proposed AGSP would result in the development and redevelopment of the AGSP planning area, and as such, has the potential to result in an increase in population within the AGSP planning area due to expanded development that could

result in population growth. Individual development projects within the AGSP and within the cities of Highland and San Bernardino would contribute property and sales tax to both of the cities, which would offset impacts to parks and recreation facilities, and the potential for new or expanded park and recreation facilities to be required in the future as a result of an indirect population growth from employment opportunities generated by AGSP development. Therefore, individual project applicants would be required to pay the statutory fees, so that park and recreation facilities can be expanded to accommodate population growth. MM **REC/PK-1** is a contingency mitigation measure intended to ensure that any incremental increase in population that could result from employment generated by development under the AGSP would not result in significant impacts to demand for park and recreation facilities, either existing, planned, or needed in the future, as neither the City of Highland nor the City of San Bernardino currently assess park or recreation fees on industrial or commercial development. Therefore, with the implementation of MM **REC/PK-1**, development of the proposed project and related cumulative projects would not result in significant cumulative impacts in regards to park and recreation facilities.

Transportation: The TIS, provided as Appendix 11a to Volume 2 of this DPEIR, is inherently cumulative because it examines the transportation effects of development of the AGSP over a 20-year horizon, and all impacts are weighted against the Future 2020 Build-Out Plus Project scenario. Cumulative trip generation within the AGSP based on buildout of the available land and the areas receiving new land use designations within the AGSP is forecast to be 30,972 net PCE trips on a daily basis, with 1,772 net PCE trips in the morning peak hour, and 2,220 net PCE trips in the evening peak hour. When these trips are placed on the already existing circulation system, mitigation measures must be implemented to maintain adequate roadway traffic flow on 15 road segments, and additionally, 10 intersections will need to be modified to maintain an acceptable LOS. With the implementation of MMs **TRAN-1** through **TRAN-10**, cumulative impacts to the circulation system would be minimized. However, the VMT Analysis, provided as Appendix 11b to Volume 2 of this DPEIR, concluded that the AGSP would contribute significant vehicle miles travelled. The VMT analysis is also inherently cumulative as it analyzes the impacts of vehicle miles travelled in the context of the cumulative vehicle miles travelled in the Cities and region within which a given project is located. As such, given that the project would exceed the VMT thresholds set forth by the Cities of Highland and San Bernardino, the AGSP would contribute significant cumulative vehicle miles travelled within the project area and region. Thus, the proposed project is forecast to make a substantial contribution to cumulative circulation or transportation systems within the City and surrounding communities.

Tribal Cultural Resources: As determined above, AGSP implementation can proceed without causing any significant adverse impacts to tribal cultural resources. Because the implementation of the proposed project is not forecast to cause any direct, significant adverse impact to any significant tribal cultural resources without implementation of mitigation measures, the proposed project has no potential to make a cumulatively considerable contribution to tribal cultural resource impacts in the project area, i.e., the AGSP project area. Any tribal cultural resources discovered on a future development site that would be adversely impacted will be mitigated by implementing MMs **CUL-1**, **CUL-2**, and **CUL-3**.

Utilities and Service Systems:

Water

Development associated with the proposed AGSP would create additional demand on water services within EVWD's service area. The redevelopment anticipated to occur within the AGSP

Planning Area could result in some additional water demands on EVWD and regional water providers as the population that exists at present within the AGSP Planning Area would be relocated and therefore would continue to demand water services. However, given the analysis and data provided herein and within EVWD and regional planning documents, the water demand by development under the AGSP would be well within planned demand and supply of water within the EVWD service area. Furthermore, the AGSP incorporates the development of the water related infrastructure identified and therefore required to serve future development proposed under the AGSP. As such, the development of the AGSP would accommodate cumulative development required to meet water demanded not only by future AGSP uses, but also other uses within EVWD's service area. However, development of wells and reservoirs required to support EVWD's service area may result in significant impacts as the ultimate locations of these facilities cannot be determined at this time. Therefore, because the AGSP would result in a significant and unavoidable impact related to expanded water supply resources, the project's contribution to cumulative impacts is considered cumulatively considerable, and therefore, would result in a significant cumulative impact.

Wastewater

Future cumulative development could exceed wastewater treatment requirements of the Santa Ana Regional Water Quality Control Board and result in potential significant cumulative impacts. Given that the AGSP would be served with wastewater services by EVWD's SNRC, for which development is nearing completion, and that the SNRC is anticipated have appropriate capacities to accommodate development associated with the AGSP as well as future development within EVWD's service area, the project's contribution to cumulative wastewater capacity impacts is not considered cumulatively considerable, particularly given that capacity at the nearby San Bernardino Municipal Water Department's Water Reclamation Plant (WRP) would be freed up to accommodate cumulative development in the area. Therefore, implementation of the AGSP would result in a less than significant cumulative impact related to wastewater treatment capacities and compliance with the RWQCB.

Stormwater

Future cumulative development within the AGSP would result in the removal of pervious surfaces and in an increase in impervious surfaces. Increases in impervious surfaces would increase stormwater quantity. This increase could cumulatively affect drainage patterns as well as drainage volume and require the construction and operation of new and/or expanded stormwater drainage facilities. This cumulative need for the construction of new and/or expanded stormwater drainage facilities could result in significant environmental effects. Additional/expanded stormwater collection is necessary to develop the AGSP as envisioned in the Project Description. The development of the new City Creek Bypass channel would occur gradually, which would contribute to minimizing impacts on the stormwater system from cumulative development within the area that would generate runoff that would be received by the new stormwater collection system. However, given that the whole of the AGSP would result in significant impacts, including significant construction and operational air quality and greenhouse gas impacts, development under the AGSP would result in cumulative significant impacts from requiring or resulting in the relocation or construction of new or expanded stormwater facilities.

Electricity/Natural Gas

The AGSP would contribute to the cumulative use of energy including electricity and natural gas within the San Bernardino County area. The region is anticipating population growth and associated housing, commercial, and industrial developments, including those that would be developed under the AGSP, that would cumulatively increase the demand for energy. However, no new energy facilities would be required to be developed to serve the AGSP Planning Area, particularly given that the Planning Area is currently served by energy infrastructure at existing uses.

Telecommunications

Future cumulative development within the AGSP would require telecommunication facility connections. While it is anticipated that the dry utility services throughout the AGSP Planning Area will be provided through the existing backbone system, cumulative development may require additional telecommunication facilities to be developed over time. However, given that the whole of the AGSP Planning Area is anticipated to be served the existing facilities, any future expansion, relocation, or construction of telecommunication facilities is not anticipated to result in cumulatively considerable impacts thereof.

Solid Waste

Project impacts to landfill capacity from construction and demolition debris were found to be less than significant based on the information and analysis provided above. Mitigation addresses construction debris recycling and reuse to achieve a reduction in waste beyond the State requirement of a 50 percent reduction by weight. Implementation of this measure would reduce the construction waste from the proposed AGSP at a higher level than required by the State. Therefore, because the proposed AGSP will exceed those requirements with implementation of mitigation measures outlined above, the project increment of construction-related solid waste for cumulative projects in the area will be less than significant. Mitigation also would minimize the amount of waste that could be hauled per day by limiting the number and size of trucks that can be utilized by a given development proposed under the AGSP. Given that a majority of the construction and demolition materials generated by future AGSP development would be diverted away from landfills, the cumulative impact from AGSP development on landfill capacity in the context of the region's solid waste generation would be less than significant. Furthermore, compared to landfill capacity—the Mid Valley and San Timoteo landfills have a permitted remaining capacity of 62,455,773 CY—and available daily intake capacity at both landfills, the 13.72 tons generated per day by build-out of the AGSP would correspond to approximately 0.14% of the combined maximum daily permitted intake capacities of both landfills. As such, cumulative impacts to landfill capacity will be less than significant due to the project construction debris and operational waste generation representing a less than substantial cumulative increment with mitigation.

Wildfire: The cumulative analysis of the Wildfire issue evaluated in Subchapter 4.21 of the DPEIR determined that the proposed CBP would not make a cumulatively considerable contribution to cumulative wildfire hazards because the AGSP is located within an urban areas outside of very high fire hazard severity zones (FHSZs). As such, while overall wildfire risk may be exacerbated by cumulative development within very high FHSZs, the AGSP would not result in a cumulatively considerable contribution to wildfire impacts.

List of Cumulative Projects

During the public review of the Notice of Preparation, the IVDA held a public scoping meeting. One of the commenters at the meeting, asked for a list of potential projects in the area surrounding the AGSP. Both the cities provided lists of project current during the late summer 2022. However, it must be kept in focus that projects within the AGSP will not be developed until both cities adopt the AGSP and modify both their General Plans and Development Codes, build-out of the AGSP is not envisioned for 20 years, or into the early 2040's. For cumulative impact purposes the area between 9th Street and 3rd Street (North to South) and Waterman and the 210 Freeway were identified.

Six projects were identified in San Bernardino and seven projects were identified in Highland. Figure 6.2-1 and 6.2-2 contains the map that were provided by each City. Figure 6.2-3 depicts a list of the projects in the City of San Bernardino corresponding with the map of project for the City provided as Figure 6.2-2. The maps and the project list identify the type of project and specific location. Note that 10 of these projects are located within the proposed AGSP boundary.

Conclusion

As summarized in the preceding text, a substantial majority of the environmental topics addressed in the DEIR were determined to contribute a less than cumulatively considerable adverse impact to the environment in which the CBP will be implemented. The following issues fall into this less than cumulatively considerable category: aesthetics, agricultural and forestry resources, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation, tribal cultural resources, and wildfire.

Cumulatively considerable impacts from implementation of the AGSP were identified for the topics of Air Quality, Greenhouse Gas, Noise, Transportation, and Utilities and Service Systems. The basis for these findings is explained in the text presented above, and in the respective Subchapters in Chapter 4, Subchapters 4.4, 4.9, and 4.18.

6.3 SIGNIFICANT IRREVERSIBLE AND/OR UNAVOIDABLE ENVIRONMENTAL IMPACTS

In considering the topic of "Significant Irreversible and/or Unavoidable Environmental Impacts," it is important to define the terminology that is used in making impact forecasts. For example, an "unavoidable significant adverse environmental impact" is an effect of a proposed that cannot be avoided or reduced below some specific threshold of significance by any available or feasible mitigation measure or feasible alternative. These impacts are discussed in the subchapter text for each environmental issue in Chapter 4 of this document.

An irreversible impact is an impact that once experienced, cannot be changed or modified, by any means. The CEQA Guidelines (14 CCR 15000 et seq.) require an EIR to address any significant irreversible environmental changes that would result from the project should it be implemented. Pursuant to Section 15126.2(d), an impact would fall into this category if (14 CCR 15126.2[d]):

- The project would involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of the project would generally commit future generations of people to similar uses;
- The project involves uses in which irreversible damage from environmental accidents could result;

- The proposed consumption of resources is not justified (e.g., the project results in wasteful use of energy).

Determining whether the project may result in significant and irreversible effects requires a determination of whether key resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. As such irreversible impacts have more nuance than do unavoidable impacts. For example, if a project results in the death of the last individual of an endangered species, this impact cannot be reversed (at least with technology available at this time). At least for the present, we cannot make any more individuals of the species. On the other hand, if air emissions from a project exceed established thresholds and are considered significant, it is feasible that future improvements in air emissions controls could reverse this impact and reduce (reverse) or perhaps eliminate the air emissions and reduce or reverse the significant impact. For example, if project mobile source emissions contribute to a significant air quality impact, increased availability and/or adoption of electric vehicles could reduce the air quality emissions attributable to the project. Thus, the potential for a reversal of an identified impact, be it less than significant or significant, depends on the time scale used for evaluation (forever or just next year) and the likelihood that sufficient resources (societal or individual) will be applied to reverse an impact.

Another example that illustrates this topic is the potential exposure of people to an accidental spill of an acutely hazardous or toxic substance. If the threat is significant enough, society will demand that such exposure be eliminated immediately. Thus, such a spill and the related exposure to the hazard may be a significant environmental impact but it is typically immediately reversed. Where it is not reversed the potential significant effects will remain until sufficient individual or societal resources are expended to eliminate the hazard.

With this in mind, the following analysis of irreversible environmental effects is presented for the reviewer's consideration.

Change in Land Use that Commits Future Generations to Similar Uses

The AGSP Planning Area contains 225 acres of existing occupied acreage and about 243 acres of vacant land. Therein, about 128 acres of land is presently occupied with residential uses that house a population of an estimated 2,471 persons within about 760 residential units. The remaining uses (commercial, educational, industrial, and public facility uses), presently employ about 487 persons. The project site is surrounded by the SBIA and industrial uses to the south with various industrial, residential, commercial, and public facility uses surrounding the Planning Area. The proposed land uses in the Highland and San Bernardino General Plans envisioned light industrial, business park, general commercial and residential uses, but much of that vision never came to fruition partly because of the configuration of the properties in the project area (requiring significant lot consolidation of existing residential uses to create an industrial lot) and partly because demand for retail was not as strong in this area (shoppers opted to go to other locations along the Baseline Corridor or near the I-10 Freeway corridor, for example). Since the project site is surrounded by existing residential, commercial, and similar urbanized uses, the project would not result in land use changes that would commit future generations to uses that are not already prevalent in the project area. The project's proposed land use of Mixed Use Business Park already conforms to much of what is allowed to be developed under the City of San Bernardino and City of Highland's respective General Plans pertaining to the Planning Area. Thus, implementation would not commit future generations to similar uses, given that this

proposed land use mix is already found throughout the Planning Area and surrounding community.

Irreversible Damage from Environmental Accidents

Potential environmental accidents of concern include those events that would adversely affect the environment or public due to the type or quantity of materials released and the receptors exposed to that release. Development activities associated with the AGSP over the Specific Plan Planning Horizon would involve some risk of environmental accidents. However, these activities would be conducted in accordance with all applicable federal, state, and local regulations, and would follow professional industry standards for safety. Furthermore, the proposed AGSP would require the incorporation of MMs **HAZ-2** and **HAZ-3**, which would reduce the potential of accidental release and exposure by identifying those actions that must occur in the event of an accidental release or the disturbance of a previously unknown contaminated areas. These measures require notification of appropriate regulatory agencies, and specific activities that will limit and control the potential for exposure. Future development under the AGSP would be required to remediate any accidental release or the disturbance of a previously unknown contaminated areas prior to operation of the individual development.

Commitment of Nonrenewable Resources

Commitment of nonrenewable resources includes issues related to increased energy consumption, loss of agricultural lands, and lost access to mining reserves. There would be an irretrievable commitment of labor, capital, and materials used during construction and operation of development under the AGSP. Nonrenewable resources would primarily be committed in the form of fossil fuels such as fuel, oil, natural gas, and gasoline used by equipment associated with construction of the project. Consumption of other non-renewable or slowly renewable resources would also occur. These resources would include lumber and other forest products, sand and gravel, asphalt, and metals such as steel, copper, and lead.

To ensure that energy implications are considered in project decisions, CEQA requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (Public Resources Code Section 21100[b][3]). Energy conservation implies that a project's cost-effectiveness be reviewed not only in dollars but also in terms of energy requirements. For many projects, cost-effectiveness may be determined more by energy efficiency than by initial dollar costs. A lead agency may consider the extent to which an energy source serving the project has already undergone environmental review that adequately analyzed and mitigated the effects of energy production.

Consistent with both Public Resources Code Section 21100(b)(3), Appendices F and G of the CEQA Guidelines, and a ruling set forth by the court in *California Clean Energy Committee v. City of Woodland*, potentially significant energy implications of a project must be considered in an EIR to the extent relevant and applicable to the project. Accordingly, based on the thresholds set forth in Appendix G of the CEQA Guidelines, the project's estimated energy demands (both short-term construction and long-term operational demands) were evaluated (see Section 4.7, Energy, of this DEIR). Project construction and operations were determined to not result in the inefficient, wasteful or unnecessary consumption of energy and therefore not cause or result in the need for additional energy producing or transmission facilities.

In addition to the above considerations, State and local laws and regulations would further reduce the project's use of nonrenewable resources over time. Specifically, electricity consumed at the project site would be increasingly sourced from renewable energy, pursuant to Senate Bill 100. Senate Bill 100, which passed in 2018, states that 44% of the total electricity sold to retail customers in California per year must be secured from qualifying renewable energy sources by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030. Senate Bill 100 also sets forth a state policy that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California and requires that achieving 100% zero-carbon electricity does not increase carbon emissions elsewhere in the western grid or is not fulfilled through resource shuffling. As such, the project's consumption of nonrenewable energy is anticipated to significantly decrease over time, as Senate Bill 100 is implemented statewide and overall nonrenewable energy consumption decreases.

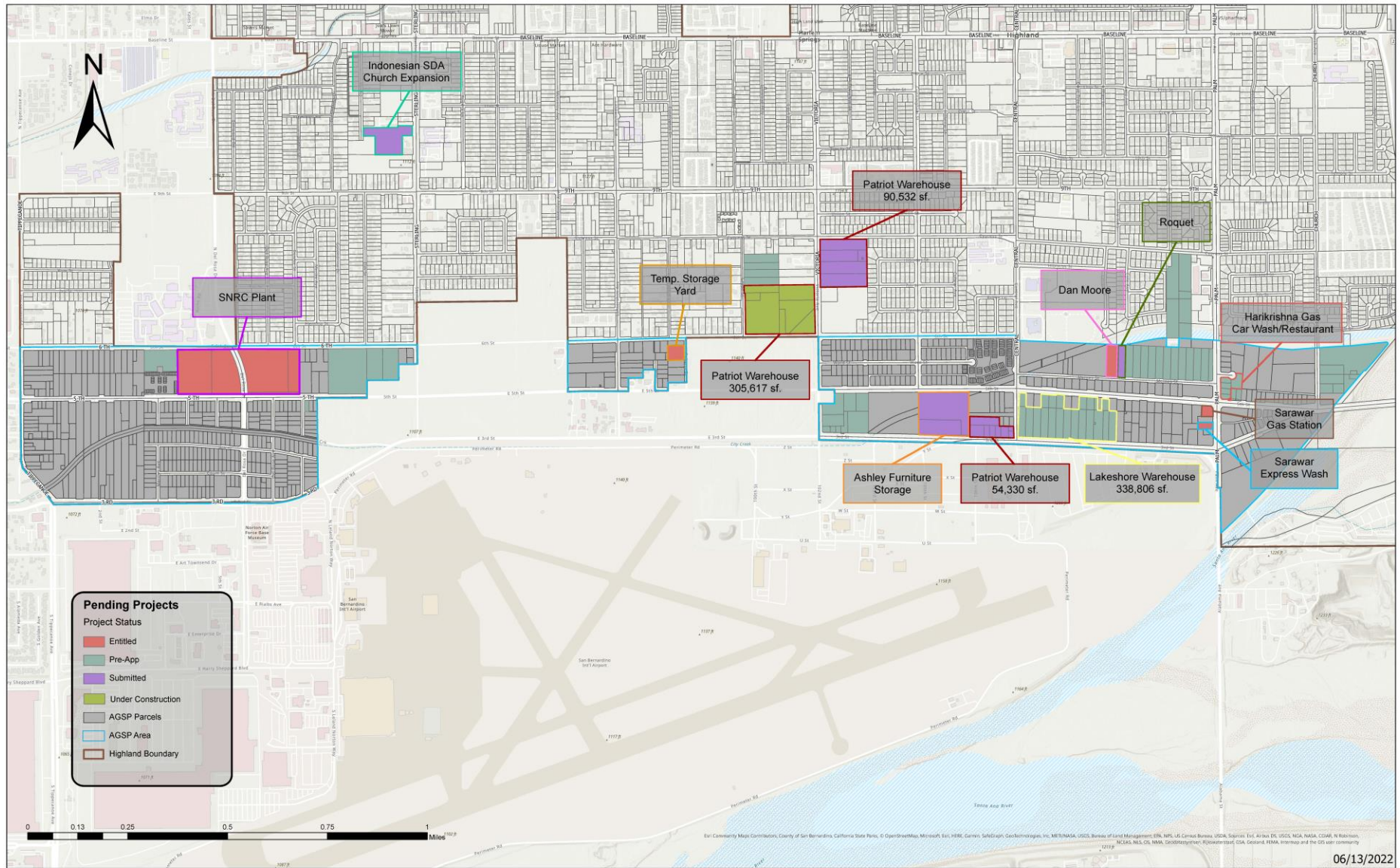
Similarly, the state strategy for the transportation sector for medium and heavy-duty trucks is focused on making trucks more efficient and expediting truck turnover rather than reducing VMT from trucks. This is in contrast to the passenger vehicle component of the transportation sector where both per-capita VMT reductions and an increase in vehicle efficiency are forecasted to be needed to achieve the overall state emissions reductions goals (see Section 4.7, Energy, for additional details). Heavy duty trucks involved in goods movements are generally controlled on the technology side and through fleet turnover of older trucks and engines to newer and cleaner trucks and engines. The first battery-electric heavy-heavy duty trucks are being tested this year and SCAQMD is looking to integrate this new technology into large-scale truck operations. Furthermore, the state has policies in place to support decreased use of personal vehicles, to be replaced with alternative modes such as transit, walking, and biking. These policies are incentivized at the local level by the proposed project's provision of alternative transportation amenities (e.g. pedestrian pathways and bicycle parking). Thus, in compliance with the California Green Building Standards Code and City requirements, the project would promote the use of bicycles as an alternative mean of transportation by providing short-term and/or long-term bicycle parking accommodations. As such policies are carried out, the number of vehicles traveling to and from the Planning Area are anticipated to decrease over time.

The project would be subject to compliance with the California Building Energy Efficiency Standards and the California Green Building Standards Code (CALGreen). In conclusion, while the proposed project would result in the use of nonrenewable resources, such use would be limited primarily to building materials, fossil fuels, and water. During operation, use of such resources is expected to decrease, as increasingly stringent efficiency requirements are implemented at the local and state level.

As demonstrated in Section 4.15, Population and Housing, of this EIR, growth in population, housing, and employment is expected to occur in the Planning Area, and Region as a whole into the foreseeable future. The proposed project falls well within regional growth projections for population and housing, as well as economic and employment growth projections. In their recently prepared RTP/SCS, SCAG forecasts that the population of the City of Highland will grow from 54,200 (2016) to 68,900 by 2045, an increase of 27.1% over the next 25 years. While, for the City of San Bernardino, SCAG forecasts that the population of the City will grow from 216,300 (2016) to 230,500 by 2045, an increase of 6.56% over the next 25 years. While the project itself is anticipated to replace the residential uses within the Planning Area, the AGSP also has the potential to generate up to about 4,610 new jobs within the AGSP Planning Area (5,097 project generated positions – 487 existing positions = 4,610 new job positions). Based on the populations of the Cities of Highland and San Bernardino, above, there is presently a 77,901 person gap

between the combined 2016 populations and buildout for each City. Given the 77,901 person gap between the combined 2016 population and the projected build out population for the area, the proposed project will not induce substantial population growth that exceeds either local or regional projections.

The project would help accommodate growth within existing developed areas, as opposed to accommodating growth through development in previously undeveloped areas. The latter development pattern generally results in permanent loss of naturalized lands and open space, as well as increased fossil fuel consumption attributable to longer commuting distances and lack of transit options. While the project would result in some irretrievable commitment of nonrenewable resources, it would also help accommodate growth in a manner that would reduce irreversible environmental changes in the region. The irretrievable commitment of resources attributable to the project would not be considered unusual when compared to a specific plan development of the same size and scope. However, while the commitment of resources to the project is not unusual or inconsistent with projects of this type and scope, once these commitments are made, it is improbable that the Planning Area would revert back to its current condition. Thus, the project would result in significant irreversible changes to the environment throughout the lifespan of the structures.



Airport Gateway Specific Plan



City of Highland

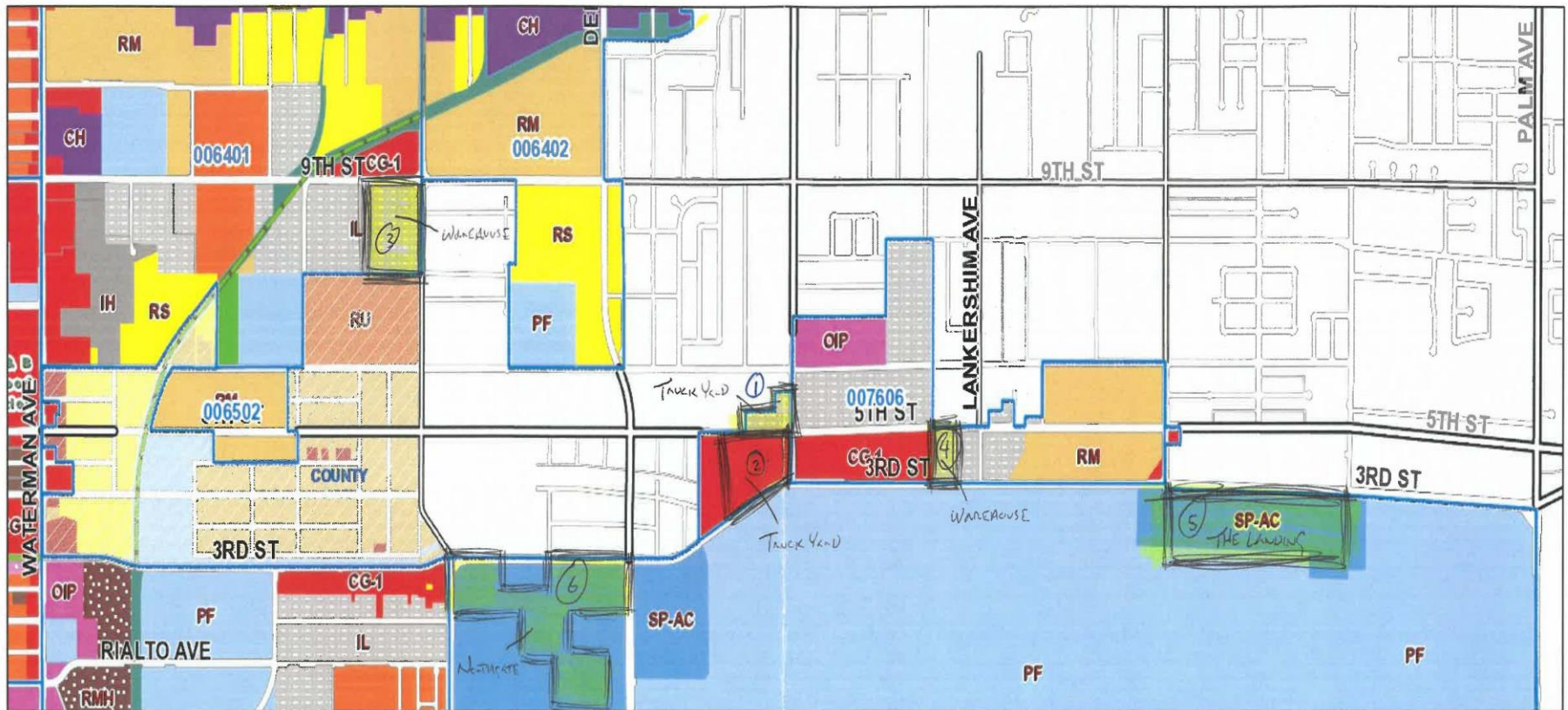
SOURCE: City of Highland

FIGURE 6.2-1

Tom Dodson & Associates
 Environmental Consultants

AGSP Process Map

Airport Gateway Specific Plan



SOURCE: City of San Bernardino

FIGURE 6.2-2

Airport Gateway Specific Plan

	PROJECT	LOCATION/ADDRESS	DESCRIPTION	STATUS
1.	DP-D 21-02	Northwest corner of East 5 th Street and N. Sterling Avenue APN: 0279-221-04, 05, 06, and 07	A request to allow the development and establishment of a truck and trailer parking facility on a property comprised of four (4) parcels containing a total of approximately 3.51 acres.	APPROVED – Pending plan check submittal
2.	DP-D 21-03	Southwest corner of East 5 th Street and N. Sterling Avenue APN: 0279-212-02 and 05; and, 0279-222-01, 02, 03, 04, and 05	A request to allow the development and establishment of a truck and trailer parking facility on a property comprised of six (6) parcels containing a total of approximately 12.57 acres.	APPROVED – Pending plan check submittal
3.	DP-D 22-05	Southwest corner East 9 th Street and N. Tippecanoe Avenue APN: 0278-191-12, 17, 25, and 28	A request to allow the development and establishment of an industrial warehouse building containing approximately 339,600 square feet on a property comprised of four (4) parcels containing a total of approximately 14.3 acres.	Under review
4.	DP-D 22-12	2310 East 3 rd Street APN: 1192-241-03, 04, 05, and 06	A request to allow the development and establishment of an industrial warehouse containing approximately 100,367 square feet on a property comprised of four (4) parcels containing a total of approximately 4.89 acres	Under review
5.	GPA 20-02, DCA (ZMA) 20-03, SPA 21-01, and DP-D 20-02	South side of East 3 rd Street, between N. Victoria Avenue and N. Central Avenue APN: 0136-371-18, 33, 36 and 37	A request to change of the General Plan Land Use Designation from Public/Quasi Public to Specific Plan and the Zoning District Classification from Public Facilities (PF) to Specific Plan – Alliance California (SP-AC) Third Street Land Use District of a parcel (APN: 0136-371-33) containing approximately 12.89 acres; and allow the consolidation of four (4) parcels containing a total of approximately 52.97 acres and the development of an industrial warehouse containing approximately 1,153,644 square feet.	APPROVED – Under construction
5.	SUB 22-03 and DP-D 22-08	Southwest corner of East 3 rd Street and N. Del Rosa Drive APN: 0136-341-80	A request to allow subdivision of a parcel containing approximately 26.47 acres into four parcels containing approximately 5.71 acres (Parcel 1), 7.16 acres (Parcel 2), 4.48 acres (Parcel 3), and 9.12 acres (Parcel 4); and, allow the development and establishment of three (3) industrial warehouses containing approximately 156,166 square feet (Parcel 2), 65,743 square feet (Parcel 3), and 198,334 square feet (Parcel 4).	Under review

FIGURE 6.2-3

CHAPTER 7 – PREPARATION RESOURCES

7.1 REPORT PREPARATION

7.1.1 LEAD AGENCY

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City of San Bernardino – Community Development
East Valley Water District
San Manuel Band of Mission Indians

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7.1.3 SPECIFIC PLAN CONSULTANT

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Wendy Nowak, AICP, Principal

In association with Kimley-Horn, Tom Dodson & Associates, and John Robinson Consulting

7.1.4 EIR TECHNICAL CONSULTANTS

- Air Quality – Urban Crossroads, Inc.
- Biology – Jericho Systems, Incorporated
- Cultural – CRM TECH
- Energy – Urban Crossroads, Inc.
- Greenhouse Gases – Urban Crossroads, Inc.
- Hydrology – JLC Engineering & Consulting, Inc.
- Noise – Urban Crossroads, Inc.
- Housing Units – Overland Pacific & Cutler, LLC
- Traffic Impact Study / VMT – Kimley-Horn and Associates, Inc.

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CRM TECH, "*Historical/Archaeological Resources Survey Report City Creek Channel Project Cities of San Bernardino and Highland San Bernardino County, California*" dated January 30, 2020

CRM TECH, "*Addendum to Historical/Archaeological Resources Reconnaissance Airport Gateway Specific Plan, Cities of San Bernardino and Highland, San Bernardino County, California*" dated July 21, 2020

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"Airport Gateway Specific Plan, Energy Analysis, Cities of San Bernardino and Highland" dated January 15, 2021

"Airport Gateway Specific Plan, Greenhouse Gas Analysis, Cities of San Bernardino and Highland" dated January 15, 2021

"Airport Gateway Specific Plan, Noise Impact Analysis, Cities of San Bernardino and Highland" dated April 6, 2021

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Biological Resources

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Cultural Resources

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- “*Historical/Archaeological Resources Survey Report City Creek Channel Project Cities of San Bernardino and Highland San Bernardino County, California,*” January 30, 2020. CRM TECH

Historic Map, Aerial Photograph, and Record Collections:

- California Historic Resources Information System: reports and site records pertaining to the AGSP project area; available at the South-Central Coastal Information Center, California State University, Fullerton.
- General Land Office, U.S. Department of the Interior: land survey plat maps, 1850s-1910s; available at U.S. Bureau of Land Management, California Desert District, Moreno Valley.
- Google Earth: historic aerial photograph collection, 1984-2016; available through the Google Earth software.
- Nationwide Environmental Title Research Online: historic aerial photograph collection, 1938-2016; available at <http://www.historicaerials.com>.
- Natural History Museum of Los Angeles County, Vertebrate Paleontology Section: paleontology collection records; available at the museum, Los Angeles.
- San Bernardino County Museum, Division of Earth Sciences: Regional Paleontological Localities Inventory; available at the museum, Redlands.
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- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- Urban Crossroads, January 14, 2021. *Airport Gateway Specific Plan Greenhouse Gas Analysis (GHGA)*
- Urban Crossroads, January 14, 2021. *Airport Gateway Specific Plan Air Quality Impact Analysis (AQIA)*

Hydrology and Water Quality

- "Preliminary Hydrology Study and Channel Design For City Creek By-Pass Channel

Mineral Resources

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- Lilburn Corporation, March 2006. *Upper Santa Ana River Wash and Land Management and Habitat Conservation Plan, Mine Reclamation Plan for the Upper Santa Ana River Wash Aggregate Lands to be Operated by Robertson's Ready Mix, Plunge Creek Quarry, Silt Pond Quarry, East Quarry South*, prepared by Lilburn Corporation, March 2006.
- Department of Conservation, California Geological Survey, 2006. *Aggregate Availability in California*

Noise

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- Urban Crossroads, December 3, 2020. *Airport Gateway Specific Plan Noise Impact Analysis (NIA)*

Population and Housing

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- Southern California Association of Governments, Local Profile: City of Highland (2019)
- Southern California Association of Governments (SCAG), Local Profile: City of San Bernardino (2019)
- SCAG 6th Cycle Regional Housing Needs Assessment Final Allocation Plan:
<https://scag.ca.gov/sites/main/files/file-attachments/6th-cycle-rhna-final-allocation-plan.pdf?1616462966>
- SCAG 2016 RTP SCS Demographics and Growth Forecast:
<https://scag.ca.gov/sites/main/files/file-attachments/f2016rtpscs.pdf?1606005557>
- SCAG Connect SoCal Demographics and Growth Forecast (2020):
https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_demographics-and-growth-forecast.pdf?1606001579

Public Services

(Fire Protection):

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- California Building Standards Commission, *2019 California Fire Code*.

- National Fire Protection Association, *NFPA Code 1710 Implementation Guide*, Current Edition 2020.
- San Bernardino County Fire Annual Report (July 2018 - June 2019):
<https://www.sbcfire.org/Portals/58/Documents/About/2018-19AnnualReport.pdf>
- San Bernardino County Fire Website, About SBC Fire. Accessed 12/22/20 at:
<https://www.sbcfire.org/Portals/58/Documents/About/2018-19AnnualReport.pdf>

(Police Protection)

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- City of Highland Development Impact Fees as of 4/13/20. Accessed 12/22/20 at:
<https://www.cityofhighland.org/DocumentCenter/View/752/Development-Impact-Fees-DIF-4-13-20-PDF>
- San Bernardino City Police Department Website, About SBPD. Accessed 12/22/20 at:
http://www.sbcity.org/cityhall/police_department/about_sbpd/about_sbpd/default.asp
- San Bernardino County Sheriff Department Website, City of Highland Patrol Station. Accessed 12/20/20 at: <https://wp.sbcounty.gov/sheriff/patrol-stations/highland/>

(Schools / Education Services)

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- San Bernardino City Unified School District Website, accessed 12/22/2020:
<https://sbcusd.com/common/pages/DisplayFile.aspx?itemId=8444985>
- Ed Data, Ed Data Website for San Bernardino City Unified School District, Accessed 12/22/2020:
<http://www.ed-data.org/district/San-Bernardino/San-Bernardino-City-Unified>

(Library, Cultural, and Other Public Services)

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*

Recreation and Parks

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- City of Highland Development Impact Fees as of 4/13/20. Accessed 12/22/20 at:
<https://www.cityofhighland.org/DocumentCenter/View/752/Development-Impact-Fees-DIF-4-13-20-PDF>
- City of San Bernardino General Plan Draft Environmental Impact Report, 2005
- City of San Bernardino Website: Parks. Accessed 12/28/20 at: <http://www.ci.san-bernardino.ca.us/cityhall/parks/parks/default.asp>
- City of San Bernardino Website: Parks, Recreation & Community Services. Accessed 12/28/20 at: <http://www.ci.san-bernardino.ca.us/cityhall/parks/default.asp>
- Southern California Association of Governments (SCAG) Local Profile City of Highland. Accessed 12/28/20 at: https://scag.ca.gov/sites/main/files/file-attachments/highland_localprofile.pdf?1606014844
- SCAG Local Profile City of San Bernardino. Accessed 12/28/20 at:
https://scag.ca.gov/sites/main/files/file-attachments/sanbernardino_localprofile.pdf?1606014826
- City of San Bernardino Municipal Code. PDF Accessed 12/28/20 at: <http://www.ci.san-bernardino.ca.us/civicax/filebank/blobload.aspx?blobid=19233>

Transportation

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*

- Kimley-Horn and Associates, Inc, November 2020. *Airport Gateway Specific Plan Traffic Impact Study (TIS)*
- Kimley-Horn and Associates, Inc., VMT Analysis for Airport Gateway Specific Plan Project dated February 2021
- Southern California Association of Governments (SCAG), September 3, 2020. *SCAG's Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy)*. Accessed on 12/29/20 at: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plan_0.pdf?1606001176
- SCAG, September 23, 2020. *A Plan Summary for Connect SoCal*. Accessed on 12/29/20 at: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plansummary_0.pdf?1606000989

Tribal Cultural Resources

- “*Historical/Archaeological Resources Reconnaissance Fifth and Third Street Corridor Specific Plan Cities of San Bernardino and Highland, San Bernardino County, California*,” prepared by CRM TECH dated December 9, 2017
- “*Historical/Archaeological Resources Survey Report City Creek Channel Project Cities of San Bernardino and Highland San Bernardino County, California*,” prepared by CRM TECH dated January 30, 2020

Utilities and Service Systems

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- EVWD Sewer System Master Plan (SSMP) was updated in early 2019
- EVWD's 2019 Water Supply Master Plan (WSMP)

Wildfire

- City of San Bernardino, November 1, 2005. *General Plan*.
- City of Highland, March 2006. *General Plan*
- California Public Utilities Commission, *Fire Threat Map* as accessed May 9, 2020 at <https://ia.cpuc.ca.gov/firemap/>
- Placeworks, November 2018. *San Bernardino Countywide Plan, Safety Background Report*.
- CalFire, California Fire Hazard Severity Zone Viewer as accessed May 9, 2020 at <https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414>

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CHAPTER 8 – APPENDICES

- 8.1 NOTICE OF PREPARATION / DISTRIBUTION LIST / NOP POSTED WITH SAN BERNARDINO COUNTY**

- 8.2 SCOPING MEETING**

- 8.3 NOP COMMENT LETTERS**

- 8.4 DRAFT AGSP**

APPENDIX 8.1

NOTICE OF PREPARATION / DISTRIBUTION LIST



INLAND VALLEY DEVELOPMENT AGENCY
SAN BERNARDINO INTERNATIONAL AIRPORT AUTHORITY



**NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT (EIR)
AND NOTICE OF EIR SCOPING MEETING**

DATE: June 17, 2022

TO: Responsible and Trustee Agencies, Interested Organizations and Parties

FROM: Inland Valley Development Agency

SUBJECT: NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE AIRPORT GATEWAY SPECIFIC PLAN (AGSP)

The Inland Valley Development Agency (IVDA) will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the proposed Project identified below. The IVDA is seeking input from the general public, public agencies, and interested parties regarding the scope and content of the environmental information that should be analyzed in the EIR, including input regarding any topics or specific issues that are germane to a particular agency's statutory responsibilities in connection with the proposed Project. A short description of the Project, as well as the location and potential environmental effects, are discussed below. A detailed project description is provided as an attachment to this Notice of Preparation (NOP). A copy of the Draft AGSP can be obtained by request from the IVDA, City of Highland and City of San Bernardino. The maps and aerial photos in the attached Project Description show the location of the proposed Project. In accordance with Section 15060(d) of the State CEQA Guidelines the IVDA has determined that an EIR will be prepared to address all of the standard issues identified in the Standard Environmental Assessment Form/Initial Study (Appendix G, State CEQA Guidelines). Thus, no Initial Study accompanies this NOP.

PROJECT ENTITLEMENT: The IVDA is preparing the AGSP in cooperation with the cities of Highland and San Bernardino. Once the AGSP EIR has been certified and the AGSP has been approved by the IVDA Board, each City will consider and may adopt the AGSP and a General Plan and Municipal Code/Zoning Map Amendment as its future land use designation for the property under each city's jurisdiction. Once approved by each City, it is anticipated that land uses will gradually transition to the proposed AGSP land use designations; thereby creating a new job generating hub adjacent to the north side of the San Bernardino International Airport (SBIA) and creating a buffer between SBIA operations and the residential communities to the north within both cities.

PROJECT APPLICANT: Inland Valley Development Agency

PROJECT LOCATION: The Airport Gateway Specific Plan (AGSP) area is located approximately 60 miles east of Los Angeles just south of the foothills of the San Bernardino Mountains. It is centrally located between three major freeways (State Route (SR)-210 to the north and east, the I-215 to the west, and the I-10 to the south) and regional attractions including the Loma Linda University and Medical Center (5 miles southwest of plan area), University of Redlands (8 miles southeast of plan area), and commercial shopping destinations in Downtown San Bernardino and the Highland Town Center, both within 5 miles of the plan area (see Figure 3-1, Regional Location).

The approximate 679-acre AGSP Plan area is located immediately north of the San Bernardino International Airport (SBIA) and the Plan area extends to the north side of 6th Street except at the southwest and southeast corners of Del Rosa Drive and 6th Street where the Plan area extends to the north side of 5th Street. The western boundary extends to the center line of Tippecanoe Avenue and the Plan area is bounded by SR-210 to the east. The Specific Plan area includes land parcels in both the City of Highland (485 acres) and the City of San Bernardino (194.2 acres), as shown on Figure 3-2, Local Vicinity and Proposed Land Use Map.

PROJECT DESCRIPTION: In summary, the AGSP envisions replacing the existing mix of uses within the planning area (refer to Table 3-1 of the detailed Project Description, residential, commercial, educational, industrial, and vacant land) with approximately 9.2 million SF of Industrial Mixed Uses. To accomplish this land use transition within the AGSP would require development of up to 260 acres of existing occupied acreage and conversion of about 209 acres of vacant land to Industrial Mixed Uses. Also, due to the number of small parcels that exist within the AGSP, future developers and project proponents will have to assemble land parcels in order to fully develop the AGSP. The areas of most intense property consolidation must occur in the area between Tippecanoe and Del Rosa on the west and Victoria and the Central Avenue on the east. Also note that some of the existing industrial uses in the AGSP planning area may be compatible with the future land use designations. However, for impact forecast purposes it will be assumed that all 469 acres designated Industrial Mixed Use (IMU) will be developed/repurposed. Also note that the acreage allocated to ROW and Floodway uses are approximately the same under existing and future conditions. Thus, although the existing basic infrastructure facilities will be improved in the future (discussed below), there will not be a substantial increase in acreage allocated to them at buildout of the AGSP. The Project would require incremental installation of all the utility and roadway infrastructure required to support access and use of the land for Industrial Mixed Uses.

The following environmental issues will be analyzed in the EIR: aesthetics, agricultural and timberlands, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gases/climate change, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, tribal cultural systems, utilities and service systems, and wildfire.

SCOPING MEETING: The IVDA, in its role as CEQA Lead Agency, will hold a public scoping meeting to provide an opportunity for the public and representatives of public agencies and interested organizations to address the scope of the EIR. The Scoping Meeting is scheduled for July 7, 2022 at 6:30 PM. The meeting will be hosted by the IVDA at its Board Room located at 1601 E. Third Street, San Bernardino, CA 92408. Instructions for participating in the Scoping Meeting will be provided to all persons/parties requesting to participate by e-mail or phone. See contact information for Ms. Myriam Beltran (the IVDA point of contact) at the end of this Notice.

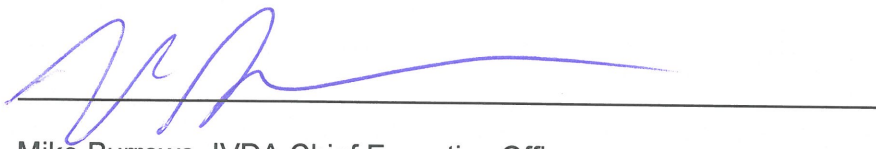
THIRTY DAY COMMENT PERIOD: Pursuant to State CEQA Guidelines (Cal Code Regs., Title 14 para. 15000 *et seq.*) Section 15082(a), any response and/or comments must be submitted to this office as soon as possible but **not later than thirty (30) days** after the date upon this Notice. The Notice of Preparation comment period begins on June 17, 2022 and ends on July 18, 2022. This Notice of Preparation is also available online at www.ivdajpa.org.

Please send your written responses to this Notice, including any comments you may have on this project, by regular mail or e-mail, to:

Mr. Michael Burrows, Chief Executive Officer
Inland Valley Development Agency
1601 E. Third Street
San Bernardino, CA 92408
[909-382-4100](tel:909-382-4100)/mburrows@sbdairport.com

Please include the name of a contact person at your agency along with any submitted comments.

If you have any questions, please contact Ms. Myriam Beltran, at 909-382-4100 or at email mbeltran@sbdairport.com



Mike Burrows, IVDA Chief Executive Officer

OFFICE OF PLANING AND RESEARCH
STATE CLEARINGHOUSE
1400 TENTH STREET
SACRAMENTO CA 95814

CALIFORNIA DEPT OF FISH & WILDLIFE
INLAND DESERT REGION (6)
3602 INLAND EMPIRE BLVD SUITE C-220
ONTARIO CA 91764

CALIFORNIA DEPT OF TOXIC SUBSTANCES
CONTROL
5796 CORPORATE AVENUE
CYPRESS CA 90630

CALFIRE
3800 NORTH SIERRA WAY
SAN BERNARDINO CA 92405

CALTRANS - DISTRICT 8
IGR/LOCAL DEVELOPMENT REVIEW
464 WEST 4TH STREET, 6TH FL, MS 820
SAN BERNARDINO CA 92401-1400

CALIFORNIA NATIVE AMERICAN HERITAGE
COMMISSION
1550 HARBOR BLVD SUITE 100
SACRAMENTO CA 95691

EAST VALLEY WATER DISTRICT
JOHN MURA, GENERAL MANAGER
31111 GREENSPOT ROAD
HIGHLAND CA 92346

EAST VALLEY WATER DISTRICT
JEFF NOELTE, DIRECTOR OF ENGR &
OPERATIONS
31111 GREENSPOT ROAD
HIGHLAND CA 92346

GABRIELENO BAND OF MISSION INDIANS –
KIZH NATION
ANDREW SALAS, CHAIRMAN
PO BOX 393
COVINA CA 91723

CITY OF HIGHLAND
LAWRENCE MAINEZ
27215 BASE LINE
HIGHLAND CA 92346

CITY OF HIGHLAND
KIM STATER
27215 BASE LINE
HIGHLAND CA 92346

LOCAL AGENCY FORMATION COMMISSION
(LAFCO)
1170 W THIRD STREET UNIT 150
SAN BERNARDINO CA 92415

METROPOLITAN WATER DISTRICT
PO BOX 54153
LOS ANGELES CA 9054-0153

MORONGO BAND OF MISSION INDIANS
MR RAYMOND HUAUTE
CULTURAL RESOURCES SPECIALIST
12700 PUMARRA ROAD
BANNING CA 92220

CITY OF REDLANDS
AIRPORT SUPERVISOR
PO BOX 3005
REDLANDS CA 92373

CITY OF REDLANDS PLANNING DEPT
PO BOX 3005
REDLANDS CA 92373

REGIONAL WATER QUALITY CONTROL
BOARD, SANTA ANA REGION
ENVIRONMENTAL REVIEW
3737 MAIN STREET SUITE 500
RIVERSIDE CA 92501-3339

CITY OF RIALTO
CITY MANAGER'S OFFICE
150 S PALM AVENUE
RIALTO CA 92376

CITY OF SAN BERNARDINO MUNICIPAL
WATER DEPARTMENT
PO BOX 710
SAN BERNARDINO CA 92402

CITY OF SAN BERNARDINO
PLANNING DEPARTMENT
OLIVER MUJICA
201 NORTH E STREET 3RD FLOOR
SAN BERNARDINO CA 92401

SAN BERNARDINO COUNTY
BOARD OF SUPERVISORS
SUPERVISOR DAWN ROWE
3RD DISTRICT
385 N ARROWHEAD AVE 5TH FLOOR
SAN BERNARDINO CA 92415-0110

SAN BERNARDINO COUNTY
PLANNING DEPARTMENT
385 N ARROWHEAD AVE 1ST FLOOR
SAN BERNARDINO CA 92415

SAN BERNARDINO COUNTY
DEPT OF PUBLIC WORKS
ATTN DIRECTOR
825 EAST THIRD STREET
SAN BERNARDINO CA 92415-0835

SAN BERNARDINO COUNTY
DEPT OF PUBLIC WORKS-FLOOD
CONTROL DISTRICT
825 EAST THIRD STREET
SAN BERNARDINO CA 92415-0835

SAN BERNARDINO COUNTY
FIRE DISTRICT
157 WEST 5TH STREET 2ND FLOOR
SAN BERNARDINO CA 92415-0451

SAN BERNARDINO COUNTY
TRANSPORTATION AUTHORITY
1170 W. 3RD STREET
SAN BERNARDINO CA 92410

SAN BERNARDINO MUNICIPAL WATER
DEPARTMENT
1350 SOUTH E STREET
SAN BERNARDINO CA 92408

SAN BERNARDINO UNIFIED
SCHOOL DISTRICT
777 NORTH F STREET
SAN BERNARDINO CA 92410

SAN BERNARDINO VALLEY MUNICIPAL
WATER DISTRICT
380 EAST VANDERBILT WAY
SAN BERNARDINO CA 92408

SAN BERNARDINO VALLEY
WATER CONSERVATION DISTRICT
1630 W REDLANDS BLVD, SUITE A
REDLANDS CA 92373

SAN MANUEL BAND OF MISSION INDIANS
PETER MATEO, DIRECTOR OF TRIBAL
PLANNING & DEVELOPMENT
674 BRIER DRIVE
SAN BERNARDINO CA 92408

SAN MANUEL BAND OF MISSION INDIANS
JESSICA MAUCK
26569 COMMUNITY CENTER DRIVE
HIGHLAND CA 92346

SAN MANUEL BAND OF MISSION INDIANS
RYAN NORDNESS, CULTURAL
RESOURCES MANAGEMENT DEPT.
26569 COMMUNITY CENTER DRIVE
HIGHLAND CA 92346

SERRANO NATION OF MISSION INDIANS
WAYNE WALKER, CO-CHAIRPERSON
PO BOX 434
PATTON CA 92369

SOBOBA BAND OF LUISEÑO INDIANS
JOSEPH ONTIVEROS
PO BOX 487
SAN JACINTO CA 92581

SOUTH COAST AIR QUALITY
MANAGEMENT DISTRICT
STEVE SMITH, CEQA REVIEWER
21865 COPLEY DRIVE
DIAMOND BAR CA 91765

SOUTHERN CALIFORNIA ASSOCIATION OF
GOVERNMENTS (SCAG)
818 WEST 7TH STREET 12TH FLOOR
LOS ANGELES CA 90017

SOUTHERN CALIFORNIA EDISON
LINDA ORTIZ, REGION MANAGER
LOCAL PUBLIC AFFAIRS
SOUTHERN CALIFORNIA EDISON
287 TENNESSEE STREET
REDLANDS CA 92373

THE GAS COMPANY (SCE)
TECHNICAL SERVICES
DEPT. M.L. 8031
P.O. BOX 3003
REDLANDS, CA 92373-0306

U.S. ARMY CORPS OF ENGINEERS
REGULATORY DIVISION
ENVIRONMENTAL REVIEW
915 WILSHIRE BLVD SUITE 1101
LOS ANGELES CA 90017

U.S. FISH AND WILDLIFE SERVICE
PALM SPRINGS FISH & WILDLIFE OFFICE
ENVIRONMENTAL REVIEW
777 E TAHQUITZ CANYON WAY SUITE 208
PALM SPRINGS CA 92262

VERIZON CALIFORNIA INC
ENGINEERING DEPARTMENT
9 SOUTH FOURTH STREET
REDLANDS CA 92373

**CATHY JENKINS – sold property
new owner below**
CHIPT
27136 3RD STREET
HIGHLAND CA 92346-4244

The following 4 parties were emailed Notice of
NOP on 6-16-22 by Myriam Beltrans at IVDA:

MIRELLE DENIZ
WWRC
mdeniz@warehouseworkers.org

TOM DOLAN
ICUC
tom@icucpico.com

MARIO VASQUEZ
mvasquez@teamsters1932.org

ANDREA VIDAURRE
PEOPLE'S COLLECTIVE FOR
ENVIRONMENTAL JUSTICE
andrea.v@pc4ej.org



INLAND VALLEY DEVELOPMENT AGENCY
 SAN BERNARDINO INTERNATIONAL AIRPORT AUTHORITY



**NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT (EIR)
 AND NOTICE OF EIR SCOPING MEETING**

DATE: June 17, 2022
TO: Responsible and Trustee Agencies, Interested Organizations and Parties
FROM: Inland Valley Development Agency
SUBJECT: NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE AIRPORT GATEWAY SPECIFIC PLAN (AGSP)

COUNTY OF SAN BERNARDINO
 CALIFORNIA
 2022 JUN 16 PM 12:19
 CLERK OF THE BOARD OF SUPERVISORS

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PROJECT APPLICANT: Inland Valley Development Agency

CLERK OF THE BOARD
 Received on: 6/16/22
 Remove on: 7/17/22

PROJECT LOCATION: The Airport Gateway Specific Plan (AGSP) area is located approximately 60 miles east of Los Angeles just south of the foothills of the San Bernardino Mountains. It is centrally located between three major freeways (State Route (SR)-210 to the north and east, the I-215 to the west, and the I-10 to the south) and regional attractions including the Loma Linda University and Medical Center (5 miles southwest of plan area), University of Redlands (8 miles southeast of plan area), and commercial shopping destinations in Downtown San Bernardino and the Highland Town Center, both within 5 miles of the plan area (see Figure 3-1, Regional Location).

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THIRTY DAY COMMENT PERIOD: Pursuant to State CEQA Guidelines (Cal Code Regs., Title 14 para. 15000 *et seq.*) Section 15082(a), any response and/or comments must be submitted to this office as soon as possible but **not later than thirty (30) days** after the date upon this Notice. The Notice of Preparation comment period begins on June 17, 2022 and ends on July 18, 2022. This Notice of Preparation is also available online at www.ivdajpa.org.

Please send your written responses to this Notice, including any comments you may have on this project, by regular mail or e-mail, to:

Mr. Michael Burrows, Chief Executive Officer
Inland Valley Development Agency
1601 E. Third Street
San Bernardino, CA 92408
[909-382-4100](tel:909-382-4100)/mburrows@sbdairport.com

Please include the name of a contact person at your agency along with any submitted comments.

If you have any questions, please contact Ms. Myriam Beltran, at 909-382-4100 or at email mbeltran@sbdairport.com



Mike Burrows, IVDA Chief Executive Officer

APPENDIX 8.2
SCOPING MEETING

First Speaker: Andrea:

- The speaker suggests workshops should be held throughout the PEIR IVDA process with the community.
 - They asked that the Project Team communicate how many.
- The speaker suggests that Spanish notices should be included as well as English ones.
 - They asked what the radius of the notification would be.
- The speaker suggests that fence line NOx, GHG, DPM tests between industrial and residential uses should be considered, as should monitoring the area for air quality. They suggests a mitigation measure to enforce this concept.
- The speaker suggests that the Project Team communicate the AQ emissions and GHG generated to community.
- Would there be recommendations for buffers between commercial / industrial and industrial / commercial between sensitive uses?
 - Would there be buffering mitigation between uses that would be incompatible?
 - Recommend additional policies (not specific) should be considered for buffering.
 - Doesn't want warehouses next to residential uses.
- The speaker believes that there should be objectives about community safety, reducing emissions, guaranteeing economic opportunities to the residents who live in the Planning Area.
- The speaker suggests reporting requirements for emissions / energy use, and that those reports should be made available to the community.
- The speaker suggests that there should be a requirement for electrification of the area, cars, trucks, buildings. Would there be an electrification plan? They suggests a similar plan that considered 25% electric by 2030, 50% by 2035, etc.
- The speaker suggests tree planting programs.

Second Speaker: Stephen

- If this was Palm Springs, would we be asking area to be rezoned? Is this being development type considered because this is an impoverished community?
- What happens to the residents who live in this community?
- Can developers use eminent domain?
- Can the Developer threaten the residents to make them leave?
- Where are the majority of the residents are located? In Highland or in San Bernardino?
- What is the impact of the houses being relocated on the housing crisis?
- If the purpose of IVDA is to revitalize the community, is the proposed use (Light industrial and commercial), minimum wage jobs meeting this goal? The speaker doesn't believe that the development supported by IVDA has revitalized the community at all.

Third Speaker: Lori

- The speaker communicates that the Specific Plan is long, and asks for verification that, as the AGSP goes through the process, it would also go through each of the City's planning commissions.
- The speaker sits on the Jurupa Valley Planning Commission and asks what projects are occurring in the area outside of the specific plan?
 - Asks the Project Team to look at cumulative impacts of implementing this project along with other cumulative projects.
- The speaker asks if each project will go through the Cities as specific development projects?

Fourth Speaker: David

- The speaker is a Business Agent for the teamsters.
- The speaker communicates that a majority of residents for Eastgate had no idea what was going to be taking place as a result of that project.
- The speaker re-emphasizes that communication of the Project with residents is important, as they believe that more people would show up with their concerns.

Fifth Speaker: Henry Salazar, Highland Resident

- In regards to the responses to scoping meeting comments provided in the document, the speaker asks who is going to be answering these questions? Who is it that is giving the okay to put certain things in the document?

- Who has the final say over what goes in the document?
- The speaker mentions job guarantee as a desire.
- Is there a process that has to be followed in order to meet CEQA? What is that process?
- The speaker suggests that no one has taken the initiative to meet with the community, suggests that Fox News and CNN ads should be placed.
- Are the truck routes established and permanent?

Sixth Speaker: Mauricio

- Are there plans to inform the residents or plans for the displaced residents?
- Are there any businesses in mind that would occupy the AGSP specific plan area?
- The speaker lists drayage trucks, diesel trucks, and concerns due to the potential emissions, and asks would there be buffer zones?
- What would the buffer zone be?
- Does it state in the EIR/Specific Plan that a goal is to buffer trucks from residents?

Seventh Speaker: Yassi, Sierra Club

- The speaker suggests that Negative Declarations are barred from use in future tiering efforts, including from parcel consolidation.
- The speaker suggests monthly updates to the community on the project and that IVDA could be the owner of the updates.
- The speaker suggests flexibility to disallow medium and heavy duty industrial development, as they are concerned about those uses. The speaker suggests that impacts from those uses already exist and are hefty.
- Would the document consider mobility initiatives or car sharing?
- The speaker is concerned about truck safety along the truck routes and having trucks that can carry drayage/cargo near commercial and residential properties. The speaker vocalizes additional concerns about obscenities on cargo trucks.
- The speaker suggests that new buildings in the overlay should be electrified, including heat pumps, appliances, and the speaker suggests working with Edison on an assessment. Utilities should be included in the design of the AGSP and individual projects. The speaker expresses that there is a huge opportunity for recycled water, pipe fitters, potential to implement construction jobs with pipe fitting recycled water.
- Community oversight structure is needed housed within the Community herein.
- The speaker recommends Sign-up Sheet Follow up.
- The speaker suggests that Presentations and Project Descriptions should be available in Spanish, as well as notices as.
- The speaker suggests that Health Risk Assessments should be required. The speaker asks what health risks would be exacerbated by this development?
 - The speaker suggests mitigation: electrification, 1,000 foot buffers, and tree canopy.
- The speaker is concerned about possible jobs and livelihood offered to the community? Why are more minimum wage jobs with companies that are multi-national corporations that don't care about the community being invited to this area?
- The speaker states that there is not a fresh food grocery store nearby. How would the AGSP facilitate this?
- The speaker states that there is not a greenspace or indoor recreation facility. How would the AGSP facilitate this?
- The speaker suggests community based mitigation to increase livelihoods in this area.
- The speaker states that there retrofit jobs provide a livable wage.
- The speaker suggests that the document/Project Team should spell out the requirements regarding wages by the state in the document.

Second Speaker: Stephen, Part 2

- The speaker states that warehouses in Moreno Valley were built without access to electricity. Edison suggested it would be several years before the infrastructure would be available for these uses.
- What are the regulations that pertain to backup generators to prevent pollution?

- The speaker suggests that back-up generators should not be allowed and development should not be allowed until electricity is available.
- What are the ramifications of generators being utilized over a period of years until electricity is available to serve them?

Eighth Speaker: Sheena Resident of Highland

- The speaker didn't know about this meeting, and believes that better communication should be available to residents.
- The speaker states that trucks blast through red lights every day in the general project area.
- The speaker believes that this project would bring more trucks and more development to an area that has significant traffic already.
- The speaker suggests that notifications should be put on the news, on Facebook, etc. for people who can't read.
- How many people get the Sun newspaper delivered to their house?

Ninth Speaker: Sean Martinez

- The speaker provided suggestions for reaching out to the community during the Eastgate project.
- The speaker believes there is a high level of interest in economic development in the community.
- The speaker suggests that a way to reach out to the community would be to knock on doors for residences that would be displaced by this plan as this would let them know what the project would mean for them.
- For most people EIRs are not accessible because of their technical content being at too high of a level.
- The speaker believes there is an opportunity to negotiate and implement Community Benefit Agreements for each of the developments that would occur under the AGSP.
- The speaker communicates that there is a lack of trust between the community and institutions. They believe this project would provide an opportunity to create good will in the community, which will be needed to revitalize this area. They believe that the last 30 years have been a failure to the community as a result of high injury rate jobs and high turn-over jobs, which have not benefitted the community. Working with the community to receive their feedback and implement Community Benefit Agreements would present an opportunity to restore trust.
- The speaker offers to help IVDA and the Cities to implement the community benefit agreements, etc.

Tenth Speaker: Jo

- The speaker is looking for community involvement, good jobs, protection of the surrounding houses, mitigation of noise, air issues, traffic.
- Is there a way to talk about the construction materials?
- Can construction materials benefit the community, using materials that sequester CO2?
- The speaker concurs with what everyone else has said
- The speaker believes that San Bernardino has been on a course of tragedy with non-union jobs, poor training, and suggests that this project should ensure that neighborhoods taken care of, noise mitigation should be considered for houses and schools that are adjacent to the project, and that traffic planning as part of the AGSP would benefit the community.
- If this project doesn't actually take place for 10-15 years, is there a follow-on process?

Eleventh Speaker: Marta Community Organizer

- The speaker suggests that newspapers are not too hip, and that people don't read them anymore. Instead people are on facebook and social media. The speaker suggests that IVDA send out the notices as flyers with dates of the hearing and of the workshops.
- The speaker lives in the City of Highland 1.5 miles away
- The speaker suggests that the Project Team get involved and email her and the community, and that her team is happy to get involved.
- The speaker indicates that she believes that the Community is not involved in CEQA and doesn't understand the environmental process. Community organizers are aware of CEQA, but people going about their daily lives aren't aware.
- The speaker suggests that the Project Team should notify the community, and should ask them to provide email addresses to keep updated on the progress of the AGSP.

APPENDIX 8.3
NOP COMMENT LETTERS

Red
6/21/22



NATIVE AMERICAN HERITAGE COMMISSION

June 17, 2022

Michael Burrows
Inland Valley Development Agency
1601 E. Third Street
San Bernardino, CA 92408

Re: 2022060349, Airport Gateway Specific Plan (AGSP) Project, San Bernardino County

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NAHC HEADQUARTERS
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NAHC.ca.gov

Dear Mr. Burrows:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines § 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project:

Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- a. A brief description of the project.
- b. The lead agency contact information.
- c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report:

A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subs. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- a. Alternatives to the project.
- b. Recommended mitigation measures.
- c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- a. Type of environmental review necessary.
- b. Significance of the tribal cultural resources.
- c. Significance of the project's impacts on tribal cultural resources.
- d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
- b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

- 7. Conclusion of Consultation:** Consultation with a tribe shall be considered concluded when either of the following occurs:
- a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
 - b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
- 8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document:** Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
- 9. Required Consideration of Feasible Mitigation:** If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
- 10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:**
- a.** Avoidance and preservation of the resources in place, including, but not limited to:
 - i.** Planning and construction to avoid the resources and protect the cultural and natural context.
 - ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i.** Protecting the cultural character and integrity of the resource.
 - ii.** Protecting the traditional use of the resource.
 - iii.** Protecting the confidentiality of the resource.
 - c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 - d.** Protecting the resource. (Pub. Resource Code §21084.3 (b)).
 - e.** Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
 - f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).
- 11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource:** An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
- a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
 - b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
 - c.** The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
 - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:
 - a. If part or all of the APE has been previously surveyed for cultural resources.
 - b. If any known cultural resources have already been recorded on or adjacent to the APE.
 - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
 - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
 - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
 - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, § 15064.5(f) (CEQA Guidelines § 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
 - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
 - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code § 7050.5, Public Resources Code § 5097.98, and Cal. Code Regs., tit. 14, § 15064.5, subdivisions (d) and (e) (CEQA Guidelines § 15064.5, subs. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address:

Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

cc: State Clearinghouse



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT VIA E-MAIL:

mburrows@sbdairport.com

Michael Burrows, Chief Executive Officer
Inland Valley Development Agency
1601 East Third Street
San Bernardino, California 92408

July 1, 2022

Notice of Preparation of an Environmental Impact Report for the Airport Gateway Specific Plan (Proposed Project)

South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to comment on the above-mentioned document. Our comments are recommendations on the analysis of potential air quality impacts from the Proposed Project that should be included in the Environmental Impact Report (EIR). Please send a copy of the EIR upon its completion and public release directly to South Coast AQMD as copies of the EIR submitted to the State Clearinghouse are not forwarded. **In addition, please send all appendices and technical documents related to the air quality, health risk, and greenhouse gas analyses and electronic versions of all emission calculation spreadsheets, and air quality modeling and health risk assessment input and output files (not PDF files). Any delays in providing all supporting documentation for our review will require additional review time beyond the end of the comment period.**

CEQA Air Quality Analysis

Staff recommends that the Lead Agency use South Coast AQMD's CEQA Air Quality Handbook and website¹ as guidance when preparing the air quality and greenhouse gas analyses. It is also recommended that the Lead Agency use the CalEEMod² land use emissions software, which can estimate pollutant emissions from typical land use development and is the only software model maintained by the California Air Pollution Control Officers Association.

South Coast AQMD has developed both regional and localized significance thresholds. South Coast AQMD staff recommends that the Lead Agency quantify criteria pollutant emissions and compare the emissions to South Coast AQMD's CEQA regional pollutant emissions significance thresholds³ and localized significance thresholds (LSTs)⁴ to determine the Proposed Project's air quality impacts. The localized analysis can be conducted by either using the LST screening tables or performing dispersion modeling.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the Proposed Project and all air pollutant sources related to the Proposed Project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road

¹ South Coast AQMD's CEQA Handbook and other resources for preparing air quality analyses can be found at: <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook>.

² CalEEMod is available free of charge at: www.caleemod.com.

³ South Coast AQMD's CEQA regional pollutant emissions significance thresholds can be found at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>.

⁴ South Coast AQMD's guidance for performing a localized air quality analysis can be found at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>.

mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips, and hauling trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers and air pollution control devices), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, such as sources that generate or attract vehicular trips, should be included in the analysis. Furthermore, emissions from the overlapping construction and operational activities should be combined and compared to South Coast AQMD's regional air quality CEQA *operational* thresholds to determine the level of significance.

If the Proposed Project generates diesel emissions from long-term construction or attracts diesel-fueled vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the Lead Agency perform a mobile source health risk assessment⁵.

In the event that implementation of the Proposed Project requires a permit from South Coast AQMD, South Coast AQMD should be identified as a Responsible Agency for the Proposed Project in the Draft EIR. The assumptions in the air quality analysis in the EIR will be the basis for evaluating the permit under CEQA and imposing permit conditions and limits. Questions on permits should be directed to South Coast AQMD's Engineering and Permitting staff at (909) 396-3385.

The South Coast AQMD's *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*⁶ includes suggested policies that local governments can use in their General Plans or through local planning to prevent or reduce potential air pollution impacts and protect public health. It is recommended that the Lead Agency review this Guidance Document as a tool when making local planning and land use decisions.

South Coast AQMD staff is concerned about potential public health impacts of siting warehouses within close proximity of sensitive land uses, especially in communities that are already heavily affected by the existing warehouse and truck activities. The South Coast AQMD's Multiple Air Toxics Exposure Study (MATES V), completed in August 2021, concluded that the largest contributor to cancer risk from air pollution is diesel particulate matter (DPM) emissions⁷. According to the MATES V Carcinogenic Risk interactive Map, the area surrounding the Proposed Project has an estimated cancer risk over 426 in one million⁸. Operation of warehouses generates and attracts heavy-duty diesel-fueled trucks that emit DPM. When the health impacts from the Proposed Project are added to those existing impacts, residents living in the communities surrounding the Proposed Project will possibly face an even greater exposure to air pollution and bear a disproportionate burden of increasing health risks.

Mitigation Measures

In the event that the Proposed Project results in significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized to minimize these impacts. Any impacts resulting from mitigation measures must also be analyzed. Several resources to assist the Lead Agency with identifying potential mitigation measures for the Proposed Project include South Coast AQMD's CEQA Air Quality Handbook¹, South Coast AQMD's Mitigation Monitoring and

⁵ South Coast AQMD's guidance for performing a mobile source health risk assessment can be found at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis>.

⁶ South Coast AQMD. 2005. *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*. Available at: <http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf>.

⁷ South Coast AQMD. August 2021. *Multiple Air Toxics Exposure Study in the South Coast Air Basin V*. Available at: <http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v>.

⁸ South Coast AQMD. MATES V Data Visualization Tool. Accessed at: [MATES Data Visualization \(arcgis.com\)](https://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v).

Reporting Plan for the 2016 Air Quality Management Plan⁹, and Southern California Association of Government's Mitigation Monitoring and Reporting Plan for the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy¹⁰.

Mitigation measures for operational air quality impacts from mobile sources that the Lead Agency should consider in the Draft EIR may include the following:

- Require zero-emissions (ZE) or near-zero emission (NZE) on-road haul trucks such as heavy-duty trucks with natural gas engines that meet the CARB's adopted optional NOx emissions standard at 0.02 grams per brake horsepower-hour (g/bhp-hr), if and when feasible. Given the state's clean truck rules and regulations aiming to accelerate the utilization and market penetration of ZE and NZE trucks such as the Advanced Clean Trucks Rule¹¹ and the Heavy-Duty Low NOx Omnibus Regulation¹², ZE and NZE trucks will become increasingly more available to use. The Lead Agency should require a phase-in schedule to incentive the use of these cleaner operating trucks to reduce any significant adverse air quality impacts. South Coast AQMD staff is available to discuss the availability of current and upcoming truck technologies and incentive programs with the Lead Agency. At a minimum, require the use of 2010 model year¹³ that meet CARB's 2010 engine emissions standards at 0.01 g/bhp-hr of particulate matter (PM) and 0.20 g/bhp-hr of NOx emissions or newer, cleaner trucks. Include environmental analyses to evaluate and identify sufficient electricity and supportive infrastructures in the Energy and Utilities and Service Systems Sections in the CEQA document, where appropriate. Include the requirement in applicable bid documents, purchase orders, and contracts. Operators shall maintain records of all trucks associated with project construction to document that each truck used meets these emission standards, and make the records available for inspection. The Lead Agency should conduct regular inspections to the maximum extent feasible to ensure compliance.
- Limit the daily number of trucks allowed at the Proposed Project to levels analyzed in the Final CEQA document. If higher daily truck volumes are anticipated to visit the site, the Lead Agency should commit to re-evaluating the Proposed Project through CEQA prior to allowing this higher activity level.
- Provide electric vehicle (EV) charging stations or at a minimum, provide the electrical infrastructure and electrical panels should be appropriately sized. Electrical hookups should be provided for truckers to plug in any onboard auxiliary equipment.

Mitigation measures for operational air quality impacts from other area sources that the Lead Agency should consider in the EIR may include the following:

- Maximize use of solar energy by installing solar energy arrays.

⁹ South Coast AQMD's 2016 Air Quality Management Plan can be found at: <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2017/2017-mar3-035.pdf> (starting on page 86).

¹⁰ Southern California Association of Governments' 2020-2045 RTP/SCS can be found at:

https://www.connectsoocal.org/Documents/PEIR/certified/Exhibit-A_ConnectSoCal_PEIR.pdf.

¹¹ CARB. June 25, 2020. *Advanced Clean Trucks Rule*. Accessed at: <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks>.

¹² CARB has recently passed a variety of new regulations that require new, cleaner heavy-duty truck technology to be sold and used in state. For example, on August 27, 2020, CARB approved the Heavy-Duty Low NOx Omnibus Regulation, which will require all trucks to meet the adopted emission standard of 0.05 g/hp-hr starting with engine model year 2024. Accessed at: <https://ww2.arb.ca.gov/rulemaking/2020/hdomnibuslownox>.

¹³ CARB adopted the statewide Truck and Bus Regulation in 2010. The Regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent. More information on the CARB's Truck and Bus Regulation is available at: <https://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>.

- Use light colored paving and roofing materials.
- Utilize only Energy Star heating, cooling, and lighting devices, and appliances.
- Use of water-based or low VOC cleaning products that go beyond the requirements of South Coast AQMD Rule 1113.

Design considerations for the Proposed Project that the Lead Agency should consider to further reduce air quality and health risk impacts include the following:

- Clearly mark truck routes with trailblazer signs, so that trucks will not travel next to or near sensitive land uses (e.g., residences, schools, day care centers, etc.).
- Design the Proposed Project such that truck entrances and exits are not facing sensitive receptors and trucks will not travel past sensitive land uses to enter or leave the Proposed Project site.
- Design the Proposed Project such that any check-in point for trucks is inside the Proposed Project site to ensure that there are no trucks queuing outside.
- Design the Proposed Project to ensure that truck traffic inside the Proposed Project site is as far away as feasible from sensitive receptors.
- Restrict overnight truck parking in sensitive land uses by providing overnight truck parking inside the Proposed Project site.

On May 7, 2021, South Coast AQMD's Governing Board adopted Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program, and Rule 316 – Fees for Rule 2305. Rules 2305 and 316 are new rules that will reduce regional and local emissions of nitrogen oxides (NO_x) and particulate matter (PM), including diesel PM. These emission reductions will reduce public health impacts for communities located near warehouses from mobile sources that are associated with warehouse activities. Also, the emission reductions will help the region attain federal and state ambient air quality standards. Rule 2305 applies to owners and operators of warehouses greater than or equal to 100,000 square feet. Under Rule 2305, operators are subject to an annual WAIRE Points Compliance Obligation that is calculated based on the annual number of truck trips to the warehouse. WAIRE Points can be earned by implementing actions in a prescribed menu in Rule 2305, implementing a site-specific custom plan, or paying a mitigation fee. Warehouse owners are only required to submit limited information reports, but they can opt in to earn Points on behalf of their tenants if they so choose because certain actions to reduce emissions may be better achieved at the warehouse development phase, for instance the installation of solar and charging infrastructure. Rule 316 is a companion fee rule for Rule 2305 to allow South Coast AQMD to recover costs associated with Rule 2305 compliance activities. Since the Proposed Project consists of the development of 7,802,541 square feet of warehouse uses, the Proposed Project's warehouses owners and operators will be required to comply with Rule 2305 once the warehouses are occupied. Therefore, South Coast AQMD staff recommends that the Lead Agency review South Coast AQMD Rule 2305 to determine the potential WAIRE Points Compliance Obligation for future operators and explore whether additional project requirements and CEQA mitigation measures can be identified and implemented at the Proposed Project that may help future warehouse operators meet their compliance obligation¹⁴. South Coast AQMD staff is available to answer questions concerning Rule 2305 implementation and compliance by phone or email at (909) 396-3140 or waire-program@aqmd.gov. For implementation guidance documents and compliance and reporting tools, please visit South Coast AQMD's WAIRE Program webpage¹⁵.

¹⁴ South Coast AQMD Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program. Accessed at: <http://www.aqmd.gov/docs/default-source/rule-book/reg-xxiii/r2305.pdf>.

¹⁵ South Coast AQMD WAIRE Program. Accessed at: <http://www.aqmd.gov/waire>.

South Coast AQMD staff is available to work with the Lead Agency to ensure that air quality, greenhouse gas, and health risk impacts from the Proposed Project are accurately evaluated and mitigated where feasible. If you have any questions regarding this letter, please contact me at mmorris@aqmd.gov.

Sincerely,

Michael Morris

Michael Morris
Planning and Rules Manager, CEQA IGR
Planning, Rule Development & Area Sources

MM
SBC220621-09
Control Number



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Inland Deserts Region
3602 Inland Empire Boulevard, Suite C-220
Ontario, CA 91764
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



July 13, 2022
Sent via email

Mr. Michael Burrows
Chief Executive Officer
Inland Valley Development Agency
1601 East Third Street
San Bernardino, CA 92408

Subject: Notice of Preparation of a Draft Environmental Impact Report
Airport Gateway Specific Plan Project
State Clearinghouse No. 2022060349

Dear Mr. Burrows:

The California Department of Fish and Wildlife (CDFW) received a Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) from the Inland Valley Development Agency for the Airport Gateway Specific Plan Project (Project) pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources, and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

¹ CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

CDFW is also submitting comments as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

The proposed Project includes a specific plan on an approximate 679-acre plan area located immediately north of the San Bernardino International Airport, bounded by 6th Street to the north, Tippecanoe Avenue to the west, and SR-210 to the east. The Specific Plan area includes land parcels in both the City of Highland (485 acres) and City of San Bernardino (194.2 acres), San Bernardino County, California. Specific details of the proposed Project include:

- Replacing existing commercial, educational facilities, industrial, public facilities, vacant, and residential land uses with approximately 9.27 million square feet of Mixed Use Business Park. To account for impacts, the Agency has designated 469 acres to Mixed Use Business Park, which includes:
 - i. Developing up to 225 acres of existing occupied acreage.
 - ii. Converting 243 acres of vacant land to Mixed Use Business Park.
- Designate 141.05 acres as Road Right-of-Way (ROW).
- Designate 68.6 acres as Floodway.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the Inland Valley Development Agency in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. CDFW recommends that the forthcoming DEIR address the following:

Assessment of Biological Resources

Section 15125(c) of the CEQA Guidelines states that knowledge of the regional setting of a project is critical to the assessment of environmental impacts and that special emphasis should be placed on environmental resources that are rare or unique to the region. To enable CDFW staff to adequately review and comment on the project, the DEIR should include a complete assessment of the flora and fauna within and adjacent to the Project footprint, with particular emphasis on identifying rare, threatened, endangered, and other sensitive species and their associated habitats.

The CDFW recommends that the DEIR specifically include:

1. An assessment of the various habitat types located within the project footprint, and a map that identifies the location of each habitat type. CDFW recommends that floristic, alliance- and/or association-based mapping and assessment be completed following *The Manual of California Vegetation*, second edition (Sawyer et al. 2009). Adjoining habitat areas should also be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.
2. A general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the project. CDFW's California Natural Diversity Database (CNDDDB) in Sacramento should be contacted at (916) 322-2493 or CNDDDB@wildlife.ca.gov to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code, in the vicinity of the proposed Project.

Please note that CDFW's CNDDDB is not exhaustive in terms of the data it houses, nor is it an absence database. CDFW recommends that it be used as a starting point in gathering information about the *potential presence* of species within the general area of the project site.

3. A complete, *recent* inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be affected, including California Species of Special Concern (CSSC) and California Fully Protected Species (Fish and Game Code § 3511). Species to be addressed should include all those which meet the CEQA definition (CEQA Guidelines § 15380). The inventory should address seasonal variations in use of the Project area and should not be limited to resident species. Focused species-specific surveys, completed by a qualified biologist and conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with CDFW and the U.S. Fish and Wildlife Service, where necessary. Note that CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of the proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought.
Burrowing Owl (*Athene cunicularia*)

The Project site has the potential to provide suitable foraging and/or nesting habitat for burrowing owl. Take of individual burrowing owls and their nests is defined by Fish and Game Code section 86, and prohibited by sections 3503, 3503.5 and 3513. Take is defined in Fish and Game Code section 86 as “hunt, pursue, catch, capture or kill, or attempt to hunt, pursue, catch, capture or kill.”

CDFW recommends that the Inland Valley Development Agency follow the recommendations and guidelines provided in the *Staff Report on Burrowing Owl Mitigation* (Department of Fish and Game, March 2012); available for download from CDFW’s website:

<https://www.wildlife.ca.gov/conservation/survey-protocols>. The Staff Report on Burrowing Owl Mitigation, specifies three steps for project impact evaluations:

- a. A habitat assessment;
- b. Surveys; and
- c. An impact assessment

As stated in the Staff Report on Burrowing Owl Mitigation, the three progressive steps are effective in evaluating whether a project will result in impacts to burrowing owls, and the information gained from the steps will inform any subsequent avoidance, minimization, and mitigation measures. Habitat assessments are conducted to evaluate the likelihood that a site supports burrowing owl. Burrowing owl surveys provide information needed to determine the potential effects of proposed projects and activities on burrowing owls, and to avoid take in accordance with Fish and Game Code sections 86, 3503, and 3503.5. Impact assessments evaluate the extent to which burrowing owls and their habitat may be impacted, directly or indirectly, on and within a reasonable distance of a proposed CEQA project activity or non-CEQA project.

Within the 2012 Staff Report, the minimum habitat replacement recommendation was purposely excluded as it was shown to serve as a default, replacing any site-specific analysis and discounting the wide variation in natal area, home range, foraging area, and other factors influencing burrowing owls and burrowing owl population persistence in a particular area. It hypothesized that mitigation for permanent impacts to nesting, occupied, and satellite burrows and burrowing owl habitat should be on, adjacent or proximate to the impact site where possible and where habitat is sufficient to support burrowing owls present. If mitigation occurs offsite, it should include (a) permanent conservation of similar vegetation communities (grassland, scrublands, desert, urban, and agriculture) to provide for burrowing owl nesting, foraging, wintering, and dispersal (i.e., during breeding and non-breeding seasons) comparable to or better than that of the impact area, and (b) be sufficiently large acreage with the presence of fossorial mammals. Furthermore, the report noted that suitable mitigation lands should be based on a comparison of

the habitat attributes of the impacted and conserved lands, including but not limited to: type and structure of habitat being impacted or conserved; density of burrowing owls in impacted and conserved habitat; and significance of impacted or conserved habitat to the species range-wide.

San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*)

The Project site may contain occupied or suitable habitat for San Bernardino kangaroo rat (SBKR), a state-listed endangered species, and other small mammal species of special concern including northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*). CDFW recommends that the project proponent conducts appropriate analysis (i.e., protocol-level trapping) to determine presence and abundance of SBKR and other sensitive small mammal species on the property, and seeks appropriate authorizations (CESA ITP), if SBKR are found. CDFW also recommends that the CEQA document appropriately identifies potential impacts to sensitive small mammal species and provides for enforceable mitigation to offset any impacts. In addition, mitigation must be roughly proportional to the level of impacts, including cumulative impacts, in accordance with the provisions of CEQA (CEQA Guidelines, §§ 15126.4(a)(4)(B), 15064, 15065, and 16355).

4. A thorough, recent, floristic-based assessment of special status plants and natural communities, following CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (see <https://www.wildlife.ca.gov/Conservation/Plants>).
5. Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region (CEQA Guidelines § 15125[c]).
6. A full accounting of all open space and mitigation/conservation lands within and adjacent to the Project.

Analysis of Direct, Indirect, and Cumulative Impacts to Biological Resources

The DEIR should provide a thorough discussion of the direct, indirect, and cumulative impacts expected to adversely affect biological resources as a result of the Project. To ensure that Project impacts to biological resources are fully analyzed, the following information should be included in the DEIR:

1. A discussion of potential impacts from lighting, noise, human activity (e.g., recreation), defensible space, and wildlife-human interactions created by zoning of development projects or other project activities adjacent to natural areas, exotic and/or invasive species, and drainage. The latter subject should address Project-

related changes on drainage patterns and water quality within, upstream, and downstream of the Project site, including: volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-Project fate of runoff from the Project site.

With respect to defensible space: please ensure that the DEIR fully describes and identifies the location, acreage, and composition of defensible space *within* the proposed Project footprint. Please ensure that any graphics and descriptions of defensible space associated with this project comply with San Bernardino County Fire Department regulations/requirements. The Inland Valley Development Agency, through their planning processes, should be ensuring that defensible space is provided and accounted for *within proposed development areas*, and not transferred to adjacent open space or conservations lands. Table 3-1 “Existing Land Use Estimates (Excluding Row and Floodway)” of the Airport Gateway Specific Plan for the Draft EIR identifies approximately 290.21 acres of vacant land, including a portion of that vacant land dedicated to ROW and floodway. CDFW requests that the DEIR clearly identify: (1) if these lands are being proposed as mitigation to offset impacts associated with the project; and (2) if these lands are also proposed to serve as defensible space. Please note that lands proposed to be managed for defensible space purposes will have lower conservation resource value as they require in-perpetuity vegetation management.

2. A discussion of potential indirect Project impacts on biological resources, including resources in areas adjacent to the project footprint, such as nearby public lands (e.g. National Forests, State Parks, etc.), open space, adjacent natural habitats, riparian ecosystems, wildlife corridors, and any designated and/or proposed reserve or mitigation lands (e.g., preserved lands associated with a Natural Community Conservation Plan, or other conserved lands).
3. An evaluation of impacts to adjacent open space lands from both the construction of the Project and any long-term operational and maintenance needs.
4. A cumulative effects analysis developed as described under CEQA Guidelines section 15130. Please include all potential direct and indirect Project related impacts to riparian areas, wetlands, vernal pools, alluvial fan habitats, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and other sensitive habitats, open lands, open space, and adjacent natural habitats in the cumulative effects analysis. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

Alternatives Analysis

CDFW recommends the DEIR describe and analyze a range of reasonable alternatives to the Project that are potentially feasible, would “feasibly attain most of the basic objectives of the Project,” and would avoid or substantially lessen any of the Project’s significant effects (CEQA Guidelines § 15126.6[a]). The alternatives analysis should also evaluate a “no project” alternative (CEQA Guidelines § 15126.6[e]).

Mitigation Measures for Project Impacts to Biological Resources

The DEIR should identify mitigation measures and alternatives that are appropriate and adequate to avoid or minimize potential impacts, to the extent feasible. The Inland Valley Development Agency should assess all direct, indirect, and cumulative impacts that are expected to occur as a result of the implementation of the Project and its long-term operation and maintenance. When proposing measures to avoid, minimize, or mitigate impacts, CDFW recommends consideration of the following:

1. *Fully Protected Species*: Fully protected species may not be taken or possessed at any time. Project activities described in the DEIR should be designed to completely avoid any fully protected species that have the potential to be present within or adjacent to the Project area. CDFW also recommends that the DEIR fully analyze potential adverse impacts to fully protected species due to habitat modification, loss of foraging habitat, and/or interruption of migratory and breeding behaviors. CDFW recommends that the Lead Agency include in the analysis how appropriate avoidance, minimization, and mitigation measures will reduce indirect impacts to fully protected species.
2. *Sensitive Plant Communities*: CDFW considers sensitive plant communities to be imperiled habitats having both local and regional significance. Plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3, and S-4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by querying the CNDDDB and are included in *The Manual of California Vegetation* (Sawyer et al. 2009). The DEIR should include measures to fully avoid and otherwise protect sensitive plant communities from project-related direct and indirect impacts.
3. *California Species of Special Concern (CSSC)*: CSSC status applies to animals generally not listed under the federal Endangered Species Act or the CESA, but which nonetheless are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. CSSCs should be considered during the environmental review process. CSSC that have the potential or have been documented to occur within or adjacent to the project area, including, but not limited to: burrowing owl, American white pelican, northern harrier, loggerhead shrike, northwestern San Diego pocket mouse, and yellow warbler.

4. *Mitigation*: CDFW considers adverse project-related impacts to sensitive species and habitats to be significant to both local and regional ecosystems, and the DEIR should include mitigation measures for adverse project-related impacts to these resources. Mitigation measures should emphasize avoidance and reduction of project impacts. For unavoidable impacts, onsite habitat restoration and/or enhancement, and preservation should be evaluated and discussed in detail. Where habitat preservation is not available onsite, offsite land acquisition, management, and preservation should be evaluated and discussed in detail.

The DEIR should include measures to perpetually protect the targeted habitat values within mitigation areas from direct and indirect adverse impacts in order to meet mitigation objectives to offset project-induced qualitative and quantitative losses of biological values. Specific issues that should be addressed include restrictions on access, proposed land dedications, long-term monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

If sensitive species and/or their habitat may be impacted from the Project, CDFW recommends the inclusion of specific mitigation in the DEIR. CEQA Guidelines section 15126.4, subdivision (a)(1)(8) states that formulation of feasible mitigation measures should not be deferred until some future date. The Court of Appeal in *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645 struck down mitigation measures which required formulating management plans developed in consultation with State and Federal wildlife agencies after Project approval. Courts have also repeatedly not supported conclusions that impacts are mitigable when essential studies, and therefore impact assessments, are incomplete (*Sundstrom v. County of Mendocino* (1988) 202 Cal. App. 3d. 296; *Gentry v. City of Murrieta* (1995) 36 Cal. App. 4th 1359; *Endangered Habitat League, Inc. v. County of Orange* (2005) 131 Cal. App. 4th 777).

CDFW recommends that the DEIR specify mitigation that is roughly proportional to the level of impacts, in accordance with the provisions of CEQA (CEQA Guidelines, §§ 15126.4(a)(4)(B), 15064, 15065, and 16355). The mitigation should provide long-term conservation value for the suite of species and habitat being impacted by the Project. Furthermore, in order for mitigation measures to be effective, they need to be specific, enforceable, and feasible actions that will improve environmental conditions.

5. *Habitat Revegetation/Restoration Plans*: Plans for restoration and revegetation should be prepared by persons with expertise in southern California ecosystems and native plant restoration techniques. Plans should identify the assumptions used to develop the proposed restoration strategy. Each plan should include, at a minimum:
 - (a) the location of restoration sites and assessment of appropriate reference sites;
 - (b) the plant species to be used, sources of local propagules, container sizes, and

seeding rates; (c) a schematic depicting the mitigation area; (d) a local seed and cuttings and planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.

CDFW recommends that local onsite propagules from the Project area and nearby vicinity be collected and used for restoration purposes. Onsite seed collection should be initiated in the near future in order to accumulate sufficient propagule material for subsequent use in future years. Onsite vegetation mapping at the alliance and/or association level should be used to develop appropriate restoration goals and local plant palettes. Reference areas should be identified to help guide restoration efforts. Specific restoration plans should be developed for various project components as appropriate.

Restoration objectives should include protecting special habitat elements or re-creating them in areas affected by the Project; examples could include retention of woody material, logs, snags, rocks, and brush piles.

6. *Nesting Birds and Migratory Bird Treaty Act*: Please note that it is the Project proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Fish and Game Code sections 3503, 3503.5, and 3513 afford protective measures as follows: Fish and Game Code section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by Fish and Game Code or any regulation made pursuant thereto. Fish and Game Code section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by Fish and Game Code or any regulation adopted pursuant thereto. Fish and Game Code section 3513 makes it unlawful to take or possess any migratory nongame bird except as provided by the rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. § 703 et seq.).

CDFW recommends that the DEIR include the results of avian surveys, as well as specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur. Project-specific avoidance and minimization measures may include, but not be limited to: project phasing and timing, monitoring of project-related noise (where applicable), sound walls, and buffers, where appropriate. The DEIR should also include specific avoidance and minimization measures that will be

implemented should a nest be located within the project site. If pre-construction surveys are proposed in the DEIR, the CDFW recommends that they be required no more than three (3) days prior to vegetation clearing or ground disturbance activities, as instances of nesting could be missed if surveys are conducted sooner.

7. *Moving out of Harm's Way*: To avoid direct mortality, CDFW recommends that the lead agency condition the DEIR to require that a CDFW-approved qualified biologist be retained to be onsite prior to and during all ground- and habitat-disturbing activities to move out of harm's way special status species or other wildlife of low or limited mobility that would otherwise be injured or killed from project-related activities. Movement of wildlife out of harm's way should be limited to only those individuals that would otherwise be injured or killed, and individuals should be moved only as far as necessary to ensure their safety (i.e., CDFW does not recommend relocation to other areas). Furthermore, it should be noted that the temporary relocation of onsite wildlife does not constitute effective mitigation for the purposes of offsetting project impacts associated with habitat loss.
8. *Translocation of Species*: CDFW generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species as studies have shown that these efforts are experimental in nature and largely unsuccessful.

California Endangered Species Act

CDFW is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to CESA. CDFW recommends that a CESA Incidental Take Permit (ITP) be obtained if the Project has the potential to result in "take" (California Fish and Game Code Section 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") of State-listed CESA species, either through construction or over the life of the project. It is the policy of CESA to conserve, protect, enhance, and restore State-listed CESA species and their habitats.

CDFW encourages early consultation, as significant modification to the proposed Project and avoidance, minimization, and mitigation measures may be necessary to obtain a CESA ITP. CDFW must comply with CEQA for issuance of a CESA ITP. CDFW therefore recommends that the DEIR addresses all Project impacts to listed species and specify a mitigation monitoring and reporting program that will meet the requirements of CESA.

Based on review of CNDDDB, and/or knowledge of the project site/vicinity/general area, CDFW is aware that the following CESA-listed species have the potential to occur onsite/have previously been reported onsite: San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*).

Lake and Streambed Alteration Program

Based on review of material submitted with the NOP and review of aerial photography City Creek, a tributary to the Santa Ana River, traverses the site. Depending on how the City Creek Bypass channel is designed and constructed, it is likely that the Project applicant will need to notify CDFW per Fish and Game Code section 1602. Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or deposit debris, waste or other materials that could pass into any river, stream or lake. Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow.

Upon receipt of a complete notification, CDFW determines if the proposed Project activities may substantially adversely affect existing fish and wildlife resources and whether a Lake and Streambed Alteration (LSA) Agreement is required. An LSA Agreement includes measures necessary to protect existing fish and wildlife resources. CDFW may suggest ways to modify your Project that would eliminate or reduce harmful impacts to fish and wildlife resources.

CDFW's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if necessary, the DEIR should fully identify the potential impacts to the lake, stream, or riparian resources, and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with CDFW is recommended, since modification of the proposed Project may be required to avoid or reduce impacts to fish and wildlife resources. To submit a Lake or Streambed Alteration notification package, please go to <https://wildlife.ca.gov/Conservation/Environmental-Review/EPIMS>.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). Information can be submitted online or via completion of the CNDDDB field survey form at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to CNDDDB at the following email address: CNDDDB@wildlife.ca.gov. The

Michael Burrows, Chief Executive Officer
Inland Valley Development Agency
July 13, 2022
Page 12

types of information reported to CNDDDB can be found at the following link:
<https://wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.).

CONCLUSION

CDFW appreciates the opportunity to comment on the NOP of a DEIR for Airport Gateway Specific Plan Project (SCH No. 2022060349) and recommends that the Inland Valley Development Agency address the CDFW's comments and concerns in the forthcoming DEIR. If you should have any questions pertaining to the comments provided in this letter, please contact Bryant Luu, Fish and Wildlife Scientific Aid, at (909) 538-6096 or at Bryant.luu@wildlife.ca.gov.

Sincerely,

DocuSigned by:

DF423498814B441...

Heather Pert
Acting Environmental Program Manager

ec: Kim Freeburn, Senior Environmental Scientist, Supervisor
Inland Deserts Region
Kim.Freeburn@wildlife.ca.gov

Office of Planning and Research, State Clearinghouse, Sacramento
state.clearinghouse@opr.ca.gov

REFERENCES

Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. A manual of California Vegetation, 2nd ed. California Native Plant Society Press, Sacramento, California.
<http://vegetation.cnps.org/>



San Bernardino Valley Water Conservation District

Helping Nature Store Our Water

July 15, 2022

Mr. Michael Burrows,
Chief Executive Officer
Inland Valley Developmental Agency
1601 E. Third Street
San Bernardino, CA 92408

RE: Notice of Preparation of an Environmental Impact Report for Inland Valley Developmental Agency,
Airport Gateway Specific Plan (AGSP)

Dear Mr. Burrows,

The San Bernardino Valley Water Conservation District (District) appreciates the opportunity to comment on the NOP for the Airport Gateway Specific Plan (AGSP) proposed by the Inland Valley Development Agency. The District owns properties to the east of the AGSP boundary within the Upper Santa Ana River Wash for purposes of groundwater recharge. In addition, the District is the Permittee for the Upper Santa Ana River Wash Habitat Conservation Plan (Wash Plan), which was developed to support water conservation, mining, and other critical activities while conserving habitat for five rare, threatened and endangered species, overlaps with a portion of the AGSP boundary (see Figure 1).

In preparation of the DEIR, we kindly request consideration of the following:

1. Inclusion and analysis, where appropriate of the Upper Santa Ana River Wash Habitat Conservation Plan in the Biological Resources, Land Use & Planning, and other applicable sections. Note that the project also appears to overlap with the draft Upper Santa Ana River Wash Habitat Conservation Plan, which is being led by the San Bernardino Valley Municipal Water District.
2. The following Wash Plan Covered Activities appear to occur within or adjacent to the AGSP boundary:
 - CRM.01
 - CRM.02
 - CRM.03
 - FC.01
 - FC.02
 - FC.03

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Betsy Miller

- High.01
- High.13
- VD.09
- VD.10

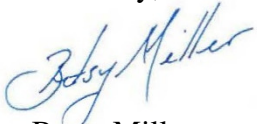
Please reference Table 2-1 in the HCP Wash Plan for covered activity ID codes, project names, and total acreages, if this information is of use in DEIR preparation.

3. We are happy to share biological data from the Wash Plan for any areas within the AGSP boundary in shapefile format, if desired.

The Wash Plan is available online at <https://www.sbvcd.org/docman-wash-plan/6245-washplan-hcp-final-full-clean-20200420-2/file>.

Please feel free to contact Milan Mitrovich at 909-793-2503 or via email at mmitrovich@sbvcd.org with any questions or comment. We appreciate the opportunity to comment and request to be included on future project notifications as well.

Sincerely,



Betsy Miller
General Manager

July 18, 2022

Inland Valley Development Agency
1601 E. Third Street
San Bernardino, CA 92408



RE: Airport Gateway Specific Plan - Comments for Notice of Preparation

Dear Mr. Burrows,

On behalf of the Peoples Collective for Environmental Justice (PCEJ), a community based organization dedicated to fighting environmental racism and eliminating air pollution burdens, we write this letter to make recommendations on the community engagement, environmental and health analysis and mitigation measures in the CEQA process.

Our organization is particularly concerned with the outreach strategies taken thus far. We do not believe that the Inland Valley Development Agency (IVDA) has done its due diligence in outreaching and engaging stakeholders on the proposed Airport Gateway Specific Plan (AGSP). Moving forward, we recommend that the IVDA invest its resources into reaching out directly to the communities and business owners that live inside the proposed AGSP and that live adjacent to it. This includes outreach and engagement with the students, parents and workers that attend the nearby schools and community centers. Reaching out directly could look like letters, flyers or other materials sent directly to the homes and schools for distribution. Second, it would be beneficial with a project of this size for multiple workshops that break down the information of the different chapters in the community. This method would allow for more community engagement in forms outside of comments. We also believe that the material, notification material and meetings should have options outside of English. The community within and adjacent to this proposed project has high levels of mono-lingual Spanish speakers, thus necessitating that option. Lastly, if there is not sufficient community participation then the IVDA should not move forward in the process until different methods are taken to ensure better participation. We also would like to emphasize that the residents and businesses who are at risk of displacement need to be involved throughout the process.

Concerning the environmental review, we believe that the IVDA must do a full environmental impact report with appendices that examine the environmental justice impacts, public health impacts and economic impacts that this project could pose.

With over 9 million square feet of proposed industrial use, there will undoubtedly be an environmental impact. Thus, the mitigation measures will be important to best understand how to mitigate the harms. We would like to see the IVDA look into different scenarios of land use options, including an option that does not allow for future distribution or warehousing facilities in the area. Another option that should be considered is using parts of the proposed area for

carbon capture projects that could offset the impacts in the nearby area. We also would like to see the IVDA explore setting electrification standards for the future uses in the area. For example, requiring percentages of fleets to electrify by a certain year if they choose to do business in the area. We are also interested in seeing the ways that the IVDA can ensure that this is a carbon neutral plan, that ensures that the least amount of impact will be put onto a community that is already burdened with extremely high levels of air pollution, noise and traffic burdens. Lastly, we would like to see the creation of an oversight committee that can negotiate and implement community benefits agreements with the developers and operators of facilities on the site, as well as participate in oversight of on-going monitoring of the community, social and economic impacts is a critical part of ensuring that this proposal makes the highest and best use of the property, on an on-going basis with community involvement.

We believe there is incredible potential with this project - opportunity to set the standard for industrial development, mitigation and community involvement. We look forward to continuing to work together towards a plan that is just for all those involved.

Sincerely,

Andrea Vidaurre
Peoples Collective for Environmental Justice

CC

Ms. Myriam Beltran
mbeltran@sbdairport.com



July 18, 2022

Michael Burrows, Chief Executive Officer
Inland Valley Development Agency
1601 East Third Street
San Bernardino, California 92408
Phone: (909) 382-4100
E-mail: mburrows@sbdairport.com

RE: SCAG Comments on the Notice of Preparation of a Draft Environmental Impact Report for the Airport Gateway Specific Plan [SCAG NO. IGR10654]

Dear Michael Burrows,

Thank you for submitting the Notice of Preparation of a Draft Environmental Impact Report for the Airport Gateway Specific Plan (“proposed project”) to the Southern California Association of Governments (SCAG) for review and comment. SCAG is responsible for providing informational resources to regionally significant plans, projects, and programs per the California Environmental Quality Act (CEQA) to facilitate the consistency of these projects with SCAG’s adopted regional plans, to be determined by the lead agencies.¹

Pursuant to Senate Bill (SB) 375, SCAG is the designated Regional Transportation Planning Agency under state law and is responsible for preparation of the Regional Transportation Plan (RTP) including the Sustainable Communities Strategy (SCS). SCAG’s feedback is intended to assist local jurisdictions and project proponents to implement projects that have the potential to contribute to attainment of Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) goals and align with RTP/SCS policies. Finally, SCAG is the authorized regional agency for Intergovernmental Review (IGR) of programs proposed for Federal financial assistance and direct Federal development activities, pursuant to Presidential Executive Order 12372.

SCAG staff has reviewed the Notice of Preparation of a Draft Environmental Impact Report for the Airport Gateway Specific Plan in San Bernardino County. The proposed project includes the development of a 9.2 million square foot (SF) Mixed Use Business Park with 1,376,919 SF of industrial distribution uses, 6,425,623 SF of industrial uses, 1,325,922 SF of tech business park uses, 142,792 SF of commercial uses, 141.05 acres of road right-of-way, and 68.6 acres of floodway on a 678.13-acre site.

When available, please email environmental documentation to IGR@scag.ca.gov providing, at a minimum, the full public comment period for review.

If you have any questions regarding the attached comments, please contact the Intergovernmental Review (IGR) Program, attn.: Annaleigh Ekman, Assistant Regional Planner, at (213) 630-1427 or IGR@scag.ca.gov. Thank you.

Sincerely,

Frank Wen, Ph.D.
Manager, Planning Strategy Department

¹ Lead agencies such as local jurisdictions have the sole discretion in determining a local project’s consistency with the 2020 RTP/SCS (Connect SoCal) for the purpose of determining consistency for CEQA.

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**COMMENTS ON THE NOTICE OF PREPARATION OF A
DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE
AIRPORT GATEWAY SPECIFIC PLAN [SCAG NO. IGR10654]**

CONSISTENCY WITH CONNECT SOCIAL

SCAG provides informational resources to facilitate the consistency of the proposed project with the adopted 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS or Connect SoCal). For the purpose of determining consistency with CEQA, lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with Connect SoCal.

For regionally significant transportation projects, should major project changes (i.e., change in scope, completion year, and/or costs) take place as result of the environmental review process that are not consistent with the latest RTP/SCS project sponsors should consult with their County Transportation Commission (CTC) to request for SCAG to amend the RTP/SCS to include the latest project information.

The proposed project involves several proposed changes to the circulation system, of which some are included in Connect SoCal [RTP ID 4A07152, FTIP IDs 201170, 20131502, and 201181]. SBCTA should coordinate with SCAG on any updates to the project scopes in the RTP/SCS.

CONNECT SOCIAL GOALS

The SCAG Regional Council fully adopted [Connect SoCal](#) in September 2020. Connect SoCal, also known as the 2020 – 2045 RTP/SCS, 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 long-range visioning plan balances future mobility and housing needs with goals for the environment, the regional economy, social equity and environmental justice, and public health. The goals included in Connect SoCal may be pertinent to the proposed project. These goals are meant to provide guidance for considering the proposed project. Among the relevant goals of Connect SoCal are the following:

SCAG CONNECT SOCIAL GOALS	
Goal #1:	<i>Encourage regional economic prosperity and global competitiveness</i>
Goal #2:	<i>Improve mobility, accessibility, reliability and travel safety for people and goods</i>
Goal #3:	<i>Enhance the preservation, security, and resilience of the regional transportation system</i>
Goal #4:	<i>Increase person and goods movement and travel choices within the transportation system</i>
Goal #5:	<i>Reduce greenhouse gas emissions and improve air quality</i>
Goal #6:	<i>Support healthy and equitable communities</i>
Goal #7:	<i>Adapt to a changing climate and support an integrated regional development pattern and transportation network</i>
Goal #8:	<i>Leverage new transportation technologies and data-driven solutions that result in more efficient travel</i>
Goal #9:	<i>Encourage development of diverse housing types in areas that are supported by multiple transportation options</i>
Goal #10:	<i>Promote conservation of natural and agricultural lands and restoration of habitats</i>

For ease of review, we encourage the use of a side-by-side comparison of SCAG goals with discussions of the consistency, non-consistency or non-applicability of the goals and supportive analysis in a table format. Suggested format is as follows:

SCAG CONNECT SOCIAL GOALS	
Goal	Analysis
Goal #1: <i>Encourage regional economic prosperity and global competitiveness</i>	<i>Consistent: Statement as to why; Not-Consistent: Statement as to why; Or Not Applicable: Statement as to why; DEIR page number reference</i>
Goal #2: <i>Improve mobility, accessibility, reliability and travel safety for people and goods</i>	<i>Consistent: Statement as to why; Not-Consistent: Statement as to why; Or Not Applicable: Statement as to why; DEIR page number reference</i>
etc.	etc.

Connect SoCal Strategies

To achieve the goals of Connect SoCal, a wide range of land use and transportation strategies are included in the accompanying twenty (20) technical reports. Of particular note are multiple strategies included in Chapter 3 of Connect SoCal intended to support implementation of the regional Sustainable Communities Strategy (SCS) framed within the context of focusing growth near destinations and mobility options; promoting diverse housing choices; leveraging technology innovations; supporting implementation of sustainability policies; and promoting a Green Region. To view Connect SoCal and the accompanying technical reports, please visit the [Connect SoCal webpage](#). Connect SoCal builds upon the progress from previous RTP/SCS cycles and continues to focus on integrated, coordinated, and balanced planning for land use and transportation that helps the SCAG region strive towards a more sustainable region, while meeting statutory requirements pertinent to RTP/SCSs. These strategies within the regional context are provided as guidance for lead agencies such as local jurisdictions when the proposed project is under consideration.

The 2020 Connect SoCal also identifies a goods movement system in the SCAG region and develops strategies to address expected growth trends and demands in goods movement. For further information on the goods movement strategies, please see the [2020 Connect SoCal Goods Movement Technical Report](#). For further information on industrial development and warehousing in Southern California, please see [Industrial Warehousing in the SCAG Region](#).

Connect SoCal identified Key Connections that lie at the intersection of land use, transportation and innovation meant to advance policy discussions and strategies to leverage new technologies and create better partnerships to increase progress on the regional goals. Accelerated Electrification is one of the Key Connections and was established to create a holistic and coordinated approach to de-carbonizing or electrifying passenger vehicles, transit, and goods movement vehicles. The Accelerated Electrification Key Connection sets a vision to reduce both the local and global emissions associated with multiple modes of transportation by deploying clean mobility solutions and the infrastructure needed to support them. SCAG staff encourages the lead agency to incorporate clean mobility solutions and supporting infrastructure into the project, as appropriate.

DEMOGRAPHICS AND GROWTH FORECASTS

A key, formative step in projecting future population, households, and employment through 2045 for Connect SoCal was the generation of a forecast of regional and county level growth in collaboration with expert demographers and

economists on Southern California. From there, jurisdictional level forecasts were ground-truthed by subregions and local agencies, which helped SCAG identify opportunities and barriers to future development. This forecast helps the region understand, in a very general sense, where we are expected to grow, and allows SCAG to focus attention on areas that are experiencing change and may have increased transportation needs. After a year-long engagement effort with all 197 jurisdictions one-on-one, 82 percent of SCAG’s 197 jurisdictions provided feedback on the forecast of future growth for Connect SoCal. SCAG also sought feedback on potential sustainable growth strategies from a broad range of stakeholder groups – including local jurisdictions, county transportation commissions, other partner agencies, industry groups, community-based organizations, and the general public. Connect SoCal utilizes a bottom-up approach in that total projected growth for each jurisdiction reflects feedback received from jurisdiction staff, including city managers, community development/planning directors, and local staff. Growth at the neighborhood level (i.e., transportation analysis zone (TAZ) reflects entitled projects and adheres to current general and specific plan maximum densities as conveyed by jurisdictions (except in cases where entitled projects and development agreements exceed these capacities as calculated by SCAG). Neighborhood level growth projections also feature strategies that help to reduce greenhouse gas emissions (GHG) from automobiles and light trucks to achieve Southern California’s GHG reduction target, approved by the California Air Resources Board (CARB) in accordance with state planning law. Connect SoCal’s Forecasted Development Pattern is utilized for long range modeling purposes and does not supersede actions taken by elected bodies on future development, including entitlements and development agreements. SCAG does not have the authority to implement the plan -- neither through decisions about what type of development is built where, nor what transportation projects are ultimately built, as Connect SoCal is adopted at the jurisdictional level. Achieving a sustained regional outcome depends upon informed and intentional local action. To access jurisdictional level growth estimates and forecasts for years 2016 and 2045, please refer to the [Connect SoCal Demographics and Growth Forecast Technical Report](#). The growth forecasts for the region and applicable jurisdictions are below.

	Adopted SCAG Region Wide Forecasts				Adopted County of San Bernardino Forecasts			
	Year 2020	Year 2030	Year 2035	Year 2045	Year 2020	Year 2030	Year 2035	Year 2045
Population	19,517,731	20,821,171	21,443,006	22,503,899	2,249,744	2,473,709	2,594,733	2,814,941
Households	6,333,458	6,902,821	7,170,110	7,633,451	667,637	750,565	792,938	874,796
Employment	8,695,427	9,303,627	9,566,384	10,048,822	833,640	925,934	971,543	1,063,848

MITIGATION MEASURES

SCAG staff recommends that you review the [Final Program Environmental Impact Report](#) (Final PEIR) for Connect SoCal for guidance, as appropriate. SCAG’s Regional Council certified the PEIR and adopted the associated Findings of Fact and a Statement of Overriding Considerations (FOF/SOC) and Mitigation Monitoring and Reporting Program (MMRP) on May 7, 2020 and also adopted a PEIR Addendum and amended the MMRP on September 3, 2020 (please see the [PEIR webpage](#) and scroll to the bottom of the page for the PEIR Addendum). The PEIR includes a list of project-level performance standards-based mitigation measures that may be considered for adoption and implementation by lead, responsible, or trustee agencies in the region, as applicable and feasible. Project-level mitigation measures are within responsibility, authority, and/or jurisdiction of project-implementing agency or other public agency serving as lead agency under CEQA in subsequent project- and site- specific design, CEQA review, and decision-making processes, to meet the performance standards for each of the CEQA resource categories.



TEAMSTERS LOCAL UNION NO. 1932

Affiliated with the **INTERNATIONAL BROTHERHOOD OF TEAMSTERS**

July 18, 2022

RE: Airport Gateway Specific Plan - Comments for NOP of EIR, SCH#2022060349

Dear Executive Director Michael Burrows:

Teamsters Local 1932 represents thousands of Teamsters and their families who live and work in the San Bernardino and Highland communities. We are also here on behalf of the community allies and neighbors with whom we have been speaking and working in the area over the last year.

The Airport Gateway Specific Plan is intended to bring new development and invigorate the area around the San Bernardino International Airport. The SBIA area is a unique resource. Development around airports present special opportunities because of their proximity to such a major piece of commercial and industrial infrastructure. That makes the land around airports, particular large and sophisticated airports, a scarce resource. Once a specific area plan for this land is passed and environmental study conducted, it will conform whatever development and investment comes to this area.

We feel it is very important to make sure that the planning process takes this into account, and treats this area as the special resource it is, by setting high standards for jobs, infrastructure, pollution mitigation, and quality of life for the surrounding areas.

To ensure that the environmental impact report is as robust as possible, we recommend that it contain at least the following:

1. Environmental impact mitigation standards that include regular fenceline testing of greenhouse gas emissions; energy consumption measuring, reporting, and requirements for renewable energy technology, such as solar panels; flood mitigation; requirements for electrification of fleets associated with vehicle-focused industrial, manufacturing, and logistical uses; a tree planting program to ensure sufficient shade and avoiding creation of intense heat sinks; and other best practices that go above and beyond minimum requirements.
2. Internal circulation infrastructure that protects pedestrian access, including bicycles
3. Because the final project operators have not yet been determined, study of the specific impacts of different types of warehouse and logistical uses, and in particular the different types of vehicles (freight, trucks, commercial vans, passenger vehicles) to be used, and their impact on road wear-and-tear, emissions, and public safety.

Additional Considerations as Mitigation Measures

The proposed project is complex, including different phases of construction and development, and with a variety of uses in a relatively compact area. (See e.g., Table 3-3 from the Attachment to the Notice of

Preparation). We therefore request that the Lead Agency, in cooperation with the impacted cities and the County, study as a potential mitigation measure the creation of an oversight and enforcement committee, to be appointed by the impacted cities, for the purpose of on-going oversight, receipt of reports, and negotiation and implementation of a community benefits agreement.

Creation of an oversight committee that can negotiate and implement community benefits agreements with the developers and operators of facilities on the site, as well as participate in oversight of on-going monitoring of the community, social and economic impacts is a critical part of ensuring that this proposal makes the highest and best use of the property, on an on-going basis with community involvement.

Community benefits agreements are increasingly common tools in massive development and redevelopment projects. They allow local governments, agencies and communities to negotiate directly with developers and project operators to agree on social impact funds, labor standards, tax and other incentives, as well as create conflict resolution protocols that avoid lengthy and expensive court battles. CBAs also give communities the peace of mind that their representatives, specifically tasked with oversight of a particular project, will monitor compliance and be on the lookout for adverse impacts on an ongoing basis, long after developers have received the entitlements and permits they need.

An active community benefits agreement process requires creations of formal bodies with appointees from government, community, and labor stakeholders that are empowered to negotiate with developers and operators. This is a critical first step to making sure that the scarce resource of airport-area development is set to its highest and best use, and sets a standard for development in the San Bernardino and Highland areas in the future. This body can then transition to an oversight role, ensuring that standards set by the community benefits agreements are complied with.

Importantly, this body can also play an active role in settling disputes between the community and the project operators, or the project operators and the impacted cities and county, before these matters escalate into legal disputes, but without obscuring these disputes behind closed doors and in back-room deals. The transparency offered by a CBA with an on-going, active oversight and implementation committee is critical not only for improving the quality of development, but for giving meaning and enforceability to all of the mitigation measures and conditions the local agencies want to impose on the project.

Please send any follow-up materials or questions in response to this public comment to Mario Vasquez at mvasquez@teamsters1932.org.

Thank you for your time.

Sincerely,



Randy Korgan
Secretary-Treasurer
Teamsters Local 1932

CC:

Ms. Myriam Beltran
mbeltran@sbdairport.com



Department of Public Works

- Flood Control
- Operations
- Solid Waste Management
- Special Districts
- Surveyor
- Transportation

Brendon Biggs, M.S., P.E.
Director
Noel Castillo, P.E.
Assistant Director

Trevor Leja
Assistant Director

July 19, 2022

Transmitted Via Email
File: 10(ENV)-4.01

Mr. Michael Burrows,
Chief Executive Officer,
Inland Valley Development Agency
1601 E. Third Street, San Bernardino, CA 92408
mburrows@sbdairport.com

RE: CEQA – THE INLAND VALLEY DEVELOPMENT AGENCY (IVDA) NOTICE OF AVAILABILITY OF NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR INLAND VALLEY DEVELOPMENT AGENCY, AIRPORT GATEWAY SPECIFIC PLAN (AGSP)

Dear Mr. Burrows:

Thank you for allowing the San Bernardino County Department of Public Works the opportunity to comment on the above-referenced project. **We received this request on June 23, 2022** and pursuant to our review, we have the following comments for your consideration and inclusion into public record:

Flood Control Planning & Water Resources Division (Michael Fam, Chief, 909-387-8120):

The Project traverses City Creek Channel (Flood Control District facility) and City Creek Levee (Corp of Engineering), both facilities are operated and maintained by San Bernardino County Flood Control District (District). The District possesses easement and fee-owned Right-of-Way within and surrounding perimeter of the Project.

The Project is within the Comprehensive Storm Drain Plan (CSDP) No. 6.

We have reviewed the NOP and offer these comments:

1. We are aware there may be storm drains in and around the site that may be affected by the proposed project. When planning for or altering existing or future storm drains, be advised that the project is subject to the District's Comprehensive Storm Drain Plan No. 6, dated August 31, 2001. It is to be used as a guideline for drainage in the area and is available through the County Department of Public Works, Flood Control Planning Division. Any revision to the drainage or improvements should be reviewed and approved by the Jurisdiction Agency where the revision occurs. Should construction of new, or alterations to existing storm drains be necessary as part of the Proposed Project, their impacts and any required mitigation should be discussed within the EIR before the document is adopted by the Lead Agency.

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Leonard X. Hernandez
Chief Executive Officer

2. According to the most recent FEMA Flood Insurance Rate Map, Panels 06071C8682J; 8701J, dated September 2, 2016, and 06071C8702H, dated August 28, 2008, the Project lies within Zones A, AE, X-shaded (500 yr. floodplain; protected by a levee), X-unshaded, and the Regulatory Floodway. Impacts associated with the project's occurrence in the mentioned Flood Zone areas and proposed mitigation, should be discussed within the EIR prior to adoption by the Lead Agency.
3. We recommend that the Cities of Highland and San Bernardino enforce its most recent regulations for development within a Special Flood Hazard Area (SFHA) and floodplains.

Permits/Operations Support Division (Fong Tse, Chief, 909-387-7995):

1. Portions of the District's right-of way and facilities (2-603-1A) City Creek Channel (aka: City Creek By-Pass), (2-601-1B and SA) City Creek, and City Creek Levee, COE, are within the proposed project area. Any encroachments including, but not limited to access for grading, side drain connections, utilities crossing, street improvements, and channel improvements on the District's right-of-way or facilities will require a permit from the District's prior to start of construction. Also, District's facilities built by the Army Corps of Engineers (ACOE) will require the District to obtain approval (408-Permit) from the ACOE. The necessity for permits, and any impacts associated with them, should be addressed in the EIR prior to adoption and certification. If you have any questions regarding this process, please contact the District's Flood Control Permit Section at (909) 387-1863

Traffic Division (Shawn Jonson, Engineering Technician IV, 909-387-7977):

1. 5th Street (Unincorporated Area)
 - a. A portion of properties adjacent to 5th Street are zoned Multi-Family with additional existing residences within Limited Industrial zoning.
 - b. Future dedication and construction of a 6-Lane Divided Major road will place truck traffic immediately adjacent to the existing residences and may displace residences.
 - i. The County does not have such a Standard and cannot therefore require anyone to build to it. Specify which cross section listed in the EIR this is referring to.
 - ii. Discuss impacts to residents within the EIR and associated mitigation.
 - c. The existing structural section is not constructed to accommodate a 6-Lane Divided Major road with proposed volumes of truck traffic.
 - i. Discuss this impact and provide costs as well as funding mechanism to reconstruct within the EIR.
2. Del Rosa Drive (Unincorporated Area)
 - a. Properties along portions of Del Rosa Avenue are zoned Single Family which will now place truck traffic in front of their homes.
 - i. Within the EIR, discuss impacts to residents on this road and associated mitigation.
 - b. There is currently insufficient right-of-way to accommodate a 4-Lane Divided Major road. This requirement also expands the requirements of the County Master Plan and Circulation Element.
 - i. Specify which cross section listed in the EIR this is referring to.
3. Please provide the Traffic Impact Study to County Traffic staff for review. Please include the supporting justification for the 2040 roadway segments.

We respectfully request to be included on the circulation list for all project notices, public reviews, or public hearings. In closing, I would like to thank you again for allowing the San Bernardino County Department of Public Works the opportunity to comment on the above-referenced project. Should you have any questions or need additional clarification, please contact the individuals who provided the specific comment, as listed above.

Sincerely,

A handwritten signature in black ink, appearing to read 'Anthony Pham', with a long horizontal flourish extending to the right.

Anthony Pham P.E.
Chief,
Environmental Management

APPENDIX 8.4

DRAFT AGSP

DRAFT - JUNE 2022



AIRPORT GATEWAY SPECIFIC PLAN

PREPARED FOR:

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CHAPTER 1.0

INTRODUCTION

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CHAPTER 1.0 INTRODUCTION

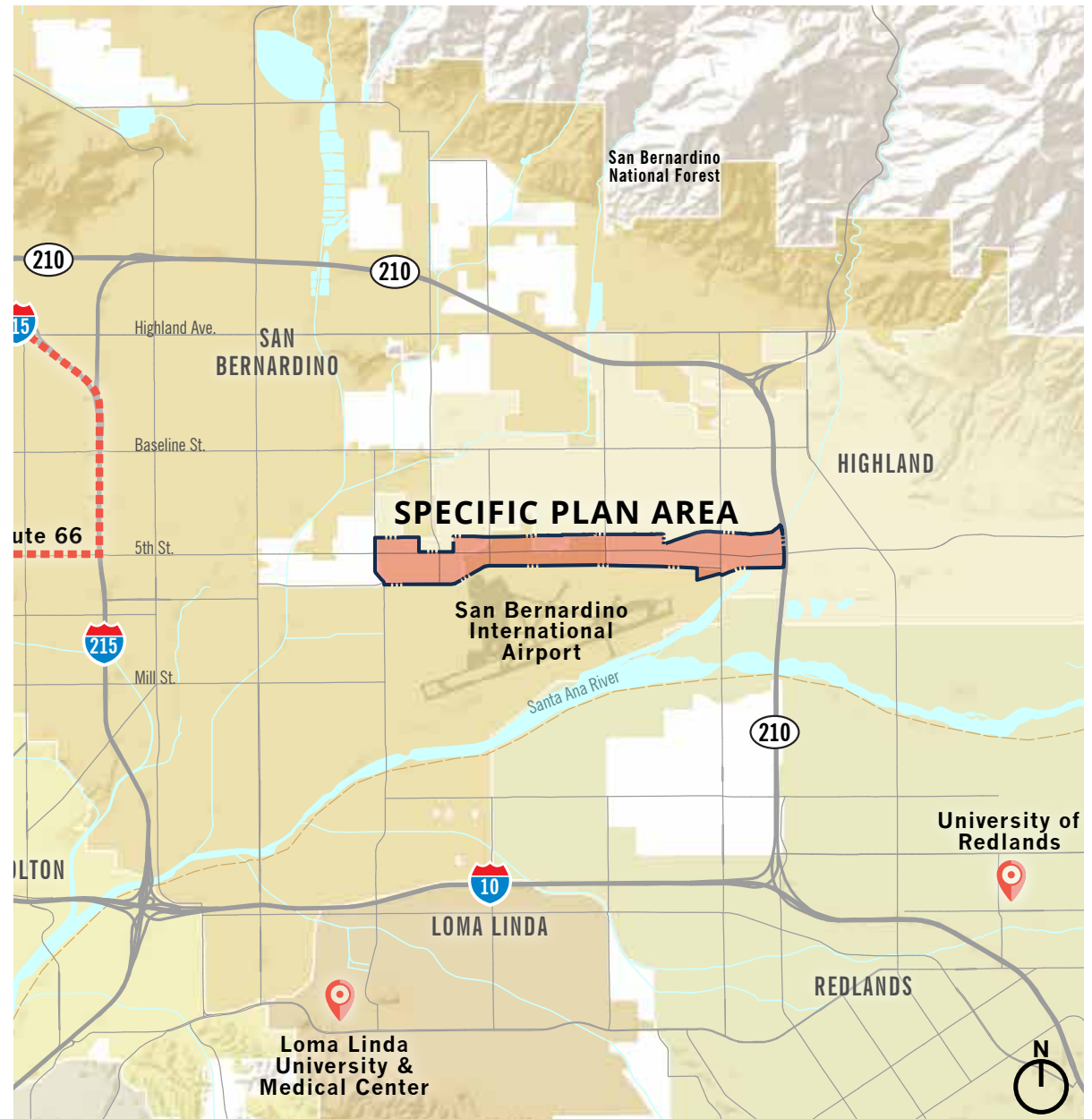
1.1 Specific Plan Overview

The Airport Gateway Specific Plan (AGSP or Specific Plan) guides growth and development for a 679-acre area (Plan Area) within the cities of Highland and San Bernardino, north of the San Bernardino International Airport (SBIA). The AGSP provides a vision and framework for a multi-jurisdictional partnership that includes the City of Highland, City of San Bernardino, Inland Valley Development Agency (IVDA), and several other participating agencies.

1.1.1 REGIONAL LOCATION

The Plan Area is approximately 60 miles east of Los Angeles just south of the foothills of the San Bernardino Mountains. It is located centrally of three major freeways: State Route 210 (210) to the north and east, Interstate 215 (I-215) to the west, and Interstate 10 (I-10) to the south and regional attractions including the Loma Linda University and Medical Center (5 miles southwest of Plan Area), University of Redlands (8 miles southeast of Plan Area), and commercial shopping destinations in Downtown San Bernardino and the Highland Town Center and Golden Triangle Policy Area,

FIGURE 1. REGIONAL LOCATION



Source: PlaceWorks, 2018



View of the San Bernardino Mountains near intersection of Palm Avenue and 5th Street.

both within 5 miles of the Plan Area (see Figure 1.1, Regional Location). The Plan area is also located approximately 3 miles east of the Historic Route 66, which is located on 5th Street, west of I-215.

1.1.2 PROJECT AREA

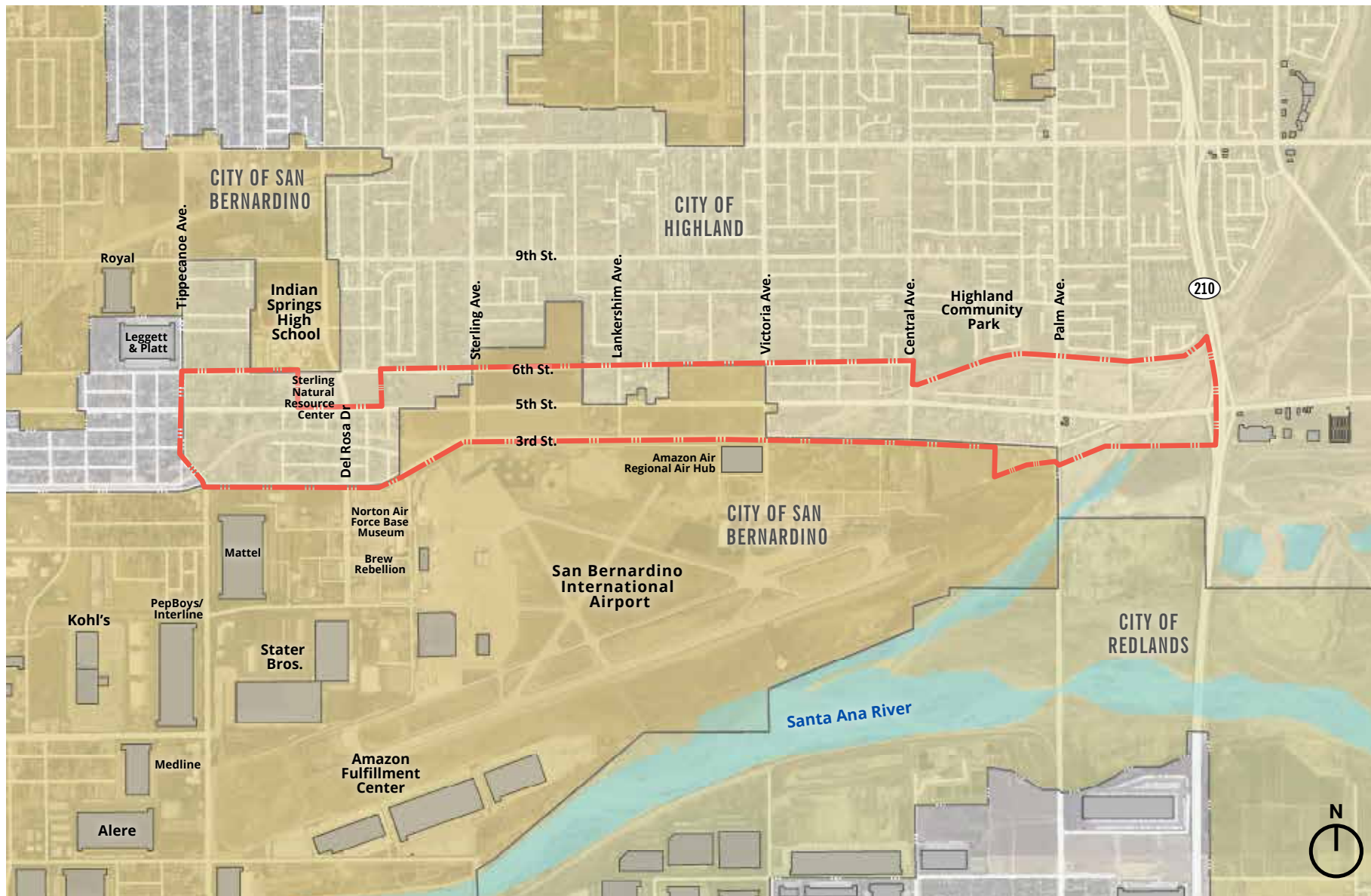
The 679-acre Plan Area area is immediately north of the SBIA and it extends to the north side of 6th Street except at the southwest and southeast corners of Del Rosa Drive and 6th Street where the Plan Area extends to the north side of 5th Street. The western boundary extends to the center line of Tippecanoe Avenue and is bounded by 210 to the east. The Plan Area includes parcels in both the City of Highland (485 acres) and the City of San Bernardino (194 acres), as shown on Figure 1.2, Local Vicinity Map.

The north side of the Plan Area is predominantly bordered by low- to medium-density residential uses, and is located directly across the street from several public facilities including Indian Springs High School, Cypress Elementary School, Highland Community Park, and the Highland Branch Library.

Although the Specific Plan does not include the SBIA, the Plan Area serves as the front door to the airport and the interface strongly influences the type of uses to include in the AGSP Land

Use Plan, and how those uses may impact the functionality of the 3rd, 5th and 6th Street corridors, and adjacent distribution facilities located directly south of the Plan Area. Well-known retailers, such as Mattel, Stater Bros., Amazon, and Kohl's each operate distribution facilities exceeding one million square feet and are examples of thriving large-scale local industrial development that has developed in the last 20 years south of the Plan Area.

FIGURE 2. LOCAL VICINITY MAP



— Plan Area Boundary

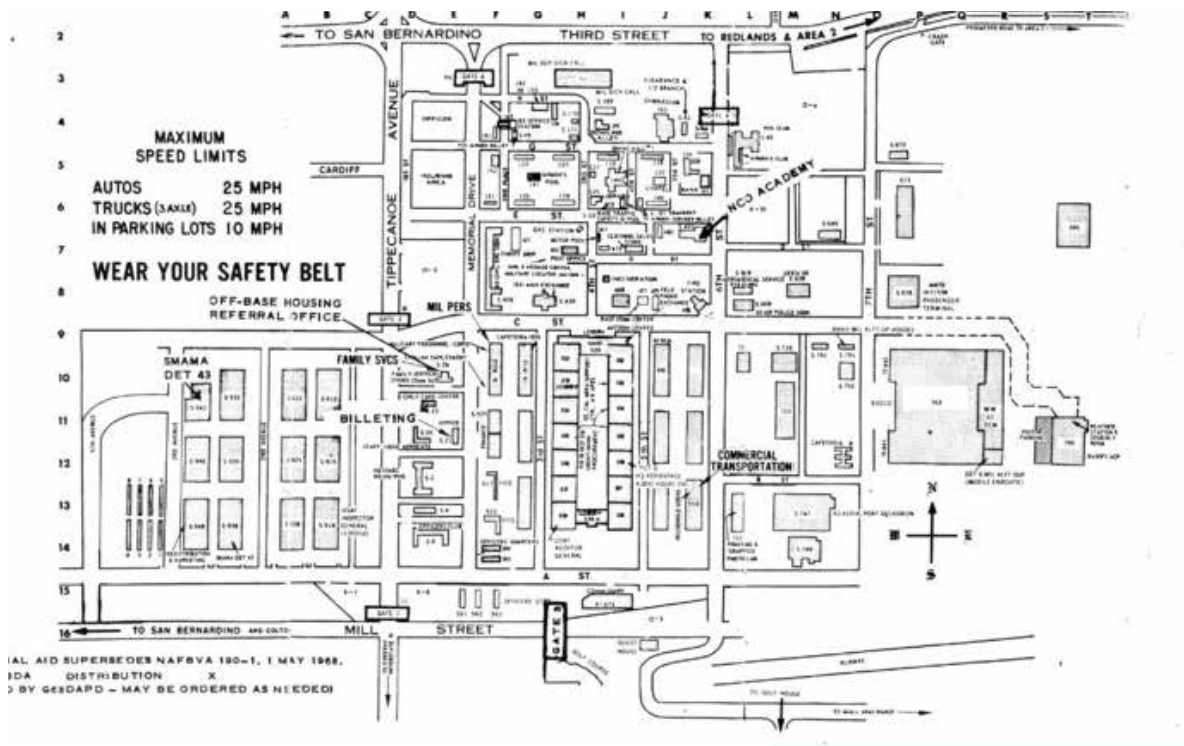
Source: PlaceWorks, 2020

1.2 Project Area History

The SBIA has played a significant role in shaping the use and character of the properties in the Plan Area. The airport was established as a supply depot in 1942 and transitioned to military use as the Norton Air Force Base in 1950. For almost 40 years, the base grew in size and by 1988, it encompassed over 2,000 acres and a military and civilian population of approximately 10,000 people. The Plan

Area provided a mix of support uses to the base, including single-family residences, recreational facilities, medical and office facilities, and training and warehouse facilities. Many residents accessed food and other retail supplies from the nearby base commissary, therefore, historically there was not a demand for the Plan Area to provide commercial retail uses to support the surrounding residential neighborhoods.

In 1988, Norton Air Force Base was selected for closure. The Secretary of Defense Base Realignment and Closure (BRAC) Commission supported the closure by citing increased air traffic congestion, inadequate facilities, a shortage of housing, health care, and recreational facilities. The Commission also cited difficulties in meeting civilian hiring requirements due to a lack of skilled workers in the area. The base officially closed in 1994. With the closure came the loss of an estimated 20,000 jobs and the area no longer had a primary role to support the ongoing military functions that were a large source of employment for the City of San Bernardino and a large part of the area's social fabric. With the relocation of military families and loss of civilian jobs, the Plan Area experienced its first major change that started the shift in land uses that are present today. Remaining residential properties were left vacant and deteriorating,



Site Plan of Area 1 of the Norton Air Force Base, 1968.
(Source: Norton Air Force Base Museum, 2018)

and the small parcels were not large enough to accommodate the growing demand for distribution and light manufacturing facilities.

The Inland Valley Development Agency (IVDA) was formed in 1990 and in 1995, entered into a long-term lease with the Department of Defense to develop and manage the transition of military property from an Air Force Base to non-military land use. To stimulate the suffering local economy, the IVDA initiated the demolition of virtually all older military buildings on the base that did not show potential for reuse in the foreseeable future and in 2002 entered into an agreement with Texas-based developer, Hillwood, to form a public-private partnership which has produced over 13.1 million square feet of new industrial buildings and created nearly 11,000 jobs just southwest of the Plan Area.

Despite the AGSP's proximity to the thriving distribution centers developed on and west of the former base, under the provisions of the *San Bernardino Alliance California Specific Plan*, and despite the fact many of the parcels are vacant (which is appealing to buyers), it has not attracted the same degree of redevelopment and reinvestment experienced by nearby properties since the closure and decommissioning of the base.

The AGSP site is in a visually prominent and heavily trafficked location as the gateway to the airport from 210; however, the irregular

jurisdictional boundaries, long and narrow configuration of the blocks, and the narrow lot depths have made redevelopment of the area more challenging than areas that have larger parcel configurations and fewer site design obstacles to overcome prior to new construction.

The Plan Area is also located in an odd transition area between the established residential neighborhoods to the north, distribution centers to the southwest and a hard edge of the airport to the south, creating a "no-man's land" in between all the uses. The proposed land uses in the Highland and San Bernardino General Plans envisioned light industrial, business park, general commercial and residential uses, but much of that never came to fruition partly because of the configuration of the properties in the Plan Area (requiring significant lot consolidation of existing residential parcels to create a lot suitable for industrial development) and partly because demand for retail has not been strong in this area (shoppers opted to go to other locations along the Baseline Corridor or near the freeway).



The Norton Air Force Base entrance, circa 1955. (Source: Norton Air Force Base Museum, 2018)



Aerial image of the area from 1994. Many properties in the project area were used to provide housing for those that worked on the Base. (Source: Google Earth Historical Imagery, 1994)

1.3 Participating Agencies & Stakeholders

Desiring a change and realizing the significant opportunity to build on the momentum of the regional demand for industrial and distribution centers nearby, a group of local agency and stakeholders comprised of the IVDA, the Cities of Highland and San Bernardino, the East Valley Water District and representatives of the San Manuel Band of Mission Indians convened to discuss challenges that have arisen over the years in redeveloping in the area and to identify opportunities for enhancement and reinvestment. Realizing that a significant transition in the area could not occur one project at a time, a primary goal of group's discussions would be to facilitate and encourage a potential economic development opportunity that would be beneficial to both cities, the airport and existing property owners interested in transforming the area.

The following provides an overview of the participants in this unique multi-jurisdictional effort and their role in preparing the Specific Plan:

INLAND VALLEY DEVELOPMENT AGENCY (IVDA)

Joint powers authority comprised of the County of San Bernardino, the City of San Bernardino, the City of Colton, and the City of Loma Linda for the effective reuse of the former Norton Air Force Base. The IVDA is responsible for the redevelopment of approximately 600 acres of non-aviation land adjacent to the San Bernardino International Airport and over 13,000 acres of surrounding land.

Role:

- » Project lead: Responsible for overseeing preparation of the SP (strategic planning, coordination between participants, consensus building, document review, scope and budget administration)
- » Able to issue bonds, acquire, sell, develop, administer, or lease property
- » As a JPA, the IVDA has no land use authority and cannot approve land use changes at the General Plan or Zoning level
- » Responsible for certifying the Environmental Impact Report (EIR)

CITIES OF HIGHLAND & SAN BERNARDINO

Local cities with jurisdictional parcels included in the project plan area. Both cities will be affected by the Specific Plan and will be responsible for planning, infrastructure, safety, roadways and circulation, and code enforcement within and around the plan area.

Role:

- » Provided relevant studies and project plans and contributed insights and feedback used to guide the vision and objectives
- » Responsible for enforcing zoning standards and regulations, roadway improvements, and design guidelines
- » Responsible for conducting necessary community outreach
- » Have authority to review and approve development proposed in the AGSP
- » Coordination with decision makers including Planning Commission and City Council

EAST VALLEY WATER DISTRICT (EVWD)

A California special district that provides water and sewer service to the Cities of Highland and San Bernardino, unincorporated San Bernardino County and the San Manuel Band of Mission Indians. The District would need to plan for and provide these services to all properties identified in this Specific Plan. In addition to providing basic services, the EVWD manages long-term capital improvement projects and offers educational programs for water conservation.

Role:

- » Provided technical reports and insight into existing and anticipated infrastructure concerns and projects

SAN MANUEL BAND OF MISSION INDIANS

A federally recognized American Indian tribe and a respected stakeholder that owns numerous properties located within and around the plan area. The Tribe actively invests in diverse and strategic economic ventures such as the San Manuel Casino and several hotel developments.

Role:

- » Participated in the development of the AGSP by contributing insights and feedback used to guide the vision, objectives, and preferred land uses

1.4 Purpose of the Airport Gateway Specific Plan

The AGSP represents a long-range plan for the development of the area and guides all future development proposals and other improvements in the Plan Area. This is particularly important because the Specific Plan must be implemented consistently across jurisdictional lines by two separate cities for it to be successful.

Collectively, the AGSP participants determined that the Plan Area would benefit from the preparation of a specific plan to:

- » Create a vision for future development
- » Build upon the existing successes of the area to attract the investment needed to develop the available parcels and the area as an active center for jobs and commerce
- » Create an agreed-to set of standards and improvements that would be adhered to by both Highland and San Bernardino (across jurisdictional lines)
- » Minimize excessive coordination and red tape between jurisdictions
- » Streamline policies that encourage and incentivize new development in the area
- » Promote the area as a gateway to the airport and existing distribution centers

- » Establish the area as the future home for premier industrial, distribution technology, innovation, and distribution firms.

The purpose of developing a specific plan for the Plan Area is to align local and regional development objectives and implementation efforts for future land use, mobility, and economic development efforts in the multi-jurisdictional Plan Area.

The AGSP is a collaborative effort, intended to provide a regulatory framework for the Plan Area that includes a comprehensive theme for the corridor, refines land use and development codes, provides efficient and effective access to freeway corridors, improves infrastructure and drainage, and develops streetscape and design standards that provide opportunities for transition and change.

1.5 Specific Plan Authority

The Specific Plan will be adopted by ordinance by the Cities of Highland and San Bernardino. The AGSP serves as the zoning for the Plan Area, establishes land use classifications and locations, development standards, regulations, infrastructure requirements, design guidelines, and implementation programs for properties within its boundaries. Future development activities within the AGSP must demonstrate consistency with the Plan, including design review plans, detailed site plans, grading and building permits, local public works projects or any other action requiring ministerial or discretionary approval applicable to the Plan Area. Additional information about the administration and authority of the AGSP can be found in Chapter 9.

1.6 Specific Plan Organization

Chapter 1: Introduction

Provides a contextual overview of the Plan Area and describes the roles of participating agencies and purpose and authority of the Specific Plan.

Chapter 2: Vision & Objectives

Identifies the future vision and objectives of the Specific Plan and provides a discussion of the relationship of the project to surrounding uses and adjacent developments.

Chapter 3: Background, Context, & Community Structure

Introduces the Plan Area and surrounding region while summarizing existing characteristics, opportunities, and constraints, including an overview of market conditions that shaped the land uses identified in the plan. Details the key design characteristics of the Plan Area by describing notable gateways, block sizes, edges, circulation routes, street frontages and transitions between industrial and residential properties.

Chapter 4: Land Use & Development Standards

Describes the intended pattern of land use. Outlines the updated permitted uses and specific development standards.

Chapter 5: Design Guidelines & Standards

Guides the physical design related to site configuration, building design, and streetscape design.

Chapter 6: Circulation

The Plan Area circulation network identifies priorities for truck and vehicle traffic as well as roadway sections and pedestrian and bicycle mobility and safety.

Chapter 7: Infrastructure

Focuses on the major infrastructure systems including sewer, dry utilities, water, drainage, and anticipated improvements.

Chapter 8: Administration, Implementation, & Financing

Explains the process for jurisdictional coordination, project approvals, amendments, and interpretations and identifies a list of implementation actions. Identifies funding and financing mechanisms and outlines actions that can be used to facilitate improvements identified in the Specific Plan. This chapter also includes an overview of consistency with the City of Highland and San Bernardino General Plans.

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CHAPTER 2.0

**VISION &
OBJECTIVES**

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CHAPTER 2.0 VISION & OBJECTIVES

2.1 Vision and Objectives

The Plan Area has historically lacked a cohesive vision and a collaborative approach to development. The Specific Plan effort brings together stakeholder interests and participating jurisdictions in the project area to articulate a unified approach to create a thriving corridor. The following is a vision of the Airport Gateway Corridor as described 50 years from now. All standards and guidelines in this document are drafted to achieve the vision statement, which serves as a touchstone for future decision making as it relates to the project area.



Industrial sites can integrate creative architectural features, entryways and interactive spaces for their employees as part of the building design.



VISION

A Vision of the AGSP 50 Years From Today



The Plan Area is a thriving concentration of industrial and office-based businesses, including manufacturing, logistics, and technology uses. These businesses provide employment, across a range of skills, for the region's residents. Many of the businesses are compatible with and support users at the San Bernardino International Airport. Commercial uses in the project area provide a place for local employees and visitors conducting business with the airport to have access to basic services and dining options during the work day. Over time, these uses may evolve into a collection and concentration of retail uses compatible with industrial and office uses that are the primary jobs generators in the corridor.

Investment in the Plan Area has **generated new businesses** and served as a **catalyst for redevelopment** in the surrounding residential and commercial areas to the north. **Distribution, light industrial and office uses** in the plan area support nearby retail businesses along the Baseline Corridor. Industrial development in the plan area has also contributed to the buildout of logistics along the I-10 Corridor.

The convenient location of the Plan Area provides **easy freeway access** and proximity to a **large skilled labor force**. The project area is ideal for businesses seeking easy airport access, without the increased congestion and high land values associated with other regional airports.

The project area provides **attractive and orderly transitions** from predominantly industrial uses to adjacent residential uses. **Well designed, built, and maintained roadways maximize safety and connectivity** and minimize conflict so that buses, bicycles, automobiles, and pedestrians safely share the roadways.

The **strong relationships of the governmental agencies** overseeing the Specific Plan implementation contribute to the area's success as a **thriving jobs center**. Agencies and other stakeholders within the plan area **work collaboratively** to develop initiatives promoting continuity of land uses, design quality and continuity, infrastructure improvements, green technologies, and economic development spanning jurisdictional boundaries.

OBJECTIVES

The vision statement articulates the function and type of place the corridor should be over time; this section identifies the objectives that drive the goals, policies, development standards, and implementation actions of the plan. The following objectives were identified by the partner agencies as priorities for the AGSP:

Economic Opportunities: Attract innovative and job-generating businesses that deliver an array of job types (diversity of qualifications, wages and salaries) near the area's residential communities and that can respond to changing demand and market conditions.

Infrastructure: Provide comprehensive infrastructure improvements for water, sewer and stormwater that resolve longstanding flooding and hydrology issues and that are adequately financed through grant opportunities, agency funding, development fees or other sources to meet future system needs.

Distinctive Design and Appearance: Gateways, corridors and buildings within the Airport Gateway Specific Plan feature landmark design elements, create a memorable visitor experience, and provide a unified sense of identity. Building and roadway treatments in this area command the same level of investment and quality of design as achieved under the adjacent Alliance Specific Plan.

Green Technologies & Energy Efficiency: Utilize current technologies and best management practices to create projects that are responsive to environmental conditions and a minimize energy use and greenhouse gas emissions.

Streetscape Improvements: Consistent roadway design and improvements, including landscape and monumentation across jurisdictional boundaries and an integrated, seamless approach to ongoing maintenance.

Mobility: Efficiently connect new office, industrial, and existing distribution uses to freeway access while providing safe spaces for truck traffic, pedestrians, cyclists, transit, and motor vehicles along 3rd and 5th Streets and near the gateway nodes. Local businesses support and incentivize bike and car share programs to further support efforts to reduce vehicle miles travelled and greenhouse gas emissions in the region.

Integrated Planning: Collaboration between agencies and property owners occurs on a regular basis to identify catalyst sites to initiate new businesses, to encourage innovative development, and to develop joint solutions to issues that arise within the project area.



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CHAPTER 3.0

BACKGROUND & CONTEXT

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CHAPTER 3.0 BACKGROUND & CONTEXT

3.1 Background and Context

This section provides an overview of existing characteristics and trends in the Plan Area, and identifies opportunities and constraints that may support or hinder the vision and objectives of the AGSP. This information reflects the most currently available data and studies, including policy documents, zoning regulations, census data, and market conditions.

3.1.1 EXISTING CHARACTER & USES

City Boundaries

The boundary between the cities of Highland and San Bernardino is irregularly drawn within the Plan Area and creates carve-outs and zig zags across blocks (see Figure 1.2, *Local Vicinity Map*), directly influencing parcel size and orientation. The Cities of Highland and San Bernardino could explore the possibility of redrawing city boundaries if desired in the future to help accommodate larger lots. Due



A new regional Amazon Air Hub at the San Bernardino International Airport will bring new economic and employment benefits to the area adjacent to the AGSP. New industrial uses in the Plan Area will build off the expansion of activities at the airport to create a synergy between the uses and active economic district for the area.

Photo Credit: Nathan Coates (Flickr)



Single Family Residential on the southwestern corner of 6th Street and Victoria Avenue, Highland.



Multi-Family Residential at 5th Street and Central Avenue, Highland.

to political barriers and the lengthy administrative process of coordinating with the Local Agency Formation Commission (LAFCO), which requires a vote to amend the boundaries, refinements are highly unlikely in the near term.

Existing Conditions

The Plan Area consists primarily of residential and industrial land uses with several pockets of small commercial uses and large blocks of vacant land (see Figure 3.1, *Existing Land Use*). The following discussion describes the existing conditions of these uses as well as some of the opportunities and constraints that will influence future development in the area, such as lot sizes, parcel configurations, and roadway access.

Residential Character

The majority of single-family homes in the Plan Area are typical of post-war housing in Southern California: single-story, stucco-covered minimalist, traditional, or ranch style homes with gable-styled pitched roofs. Some homes are visibly vacant, indicated by boarded windows and unkept grounds. Many inhabited homes lack curb appeal

and show signs of deterioration. The single-family homes are primarily concentrated in the western portion of the Plan Area with several additional pockets throughout the central and eastern portions of the Plan Area. Vacant lots can be found interspersed among the homes where the Cities have demolished dilapidated structures that no longer conformed to City codes.

There are several multifamily communities that range in style, but are generally 2-story stucco clustered buildings, often with carports or garages. All of the multifamily communities, including a single mobile home community designated for recreational vehicles (RVs) and mobile campers, are located directly adjacent to at least one vacant lot and lack a sense of cohesion with the surrounding community.

Industrial Character

The majority of industrial uses within the Plan Area are located in the eastern portion, between Central Avenue and 210 but additional pockets can be found in the central portion of the Plan Area, just west of Lankershim Avenue and scattered intermittently on either side of 3rd Street, west of Del Rosa Drive. Most of the existing industrial properties consist of mini-storage or small warehouse buildings with minimal lot coverage, leaving an abundance of undeveloped land or paved lots, typically used for storage or parking. Many of the existing

industrial parcels are narrow and deep, creating difficulties for facilities that need adequate space for loading docks and truck access.

Adjacent to the Plan Area, a new 18-acre wastewater treatment facility and demonstration garden are under development by the EVWD at the southwest and southeast corners of Del Rosa Drive and 6th Street.

The Plan Area has the opportunity to build on the recently-developed momentum generated by distribution centers located adjacent to the Plan Area but will need considerable lot reconfiguration to transition from long narrow and oddly situated lots into large lots that can accommodate large building footprints, loading docks, and increased truck traffic needed for large-scale distribution uses.

Commercial Character

There are very few commercial uses in the Plan Area. The businesses that are present, provide a limited range of goods and services. Existing businesses include numerous auto repair shops, mini-storage and equipment rental. There are a limited number of quick service dining options, including several newly constructed buildings at the intersection of 5th Street and Alabama Street, but no fine dining or grocery stores. The area does contain several convenience stores, a motel, and a couple of neighborhood bars but is not home to any major retailers, upscale lodging, or entertainment venues.

Consumers typically leave the Plan Area to access commercial facilities, many of which are located less than one mile north of the project area along Baseline Street or on 5th Street, east of the 210. Similar to the residential parcels, many existing commercial lots are generally underutilized and include small structures with large parking lots or undeveloped land. Commercial signage is minimal or non-existent, inhibiting the potential to attract shoppers driving through the area.



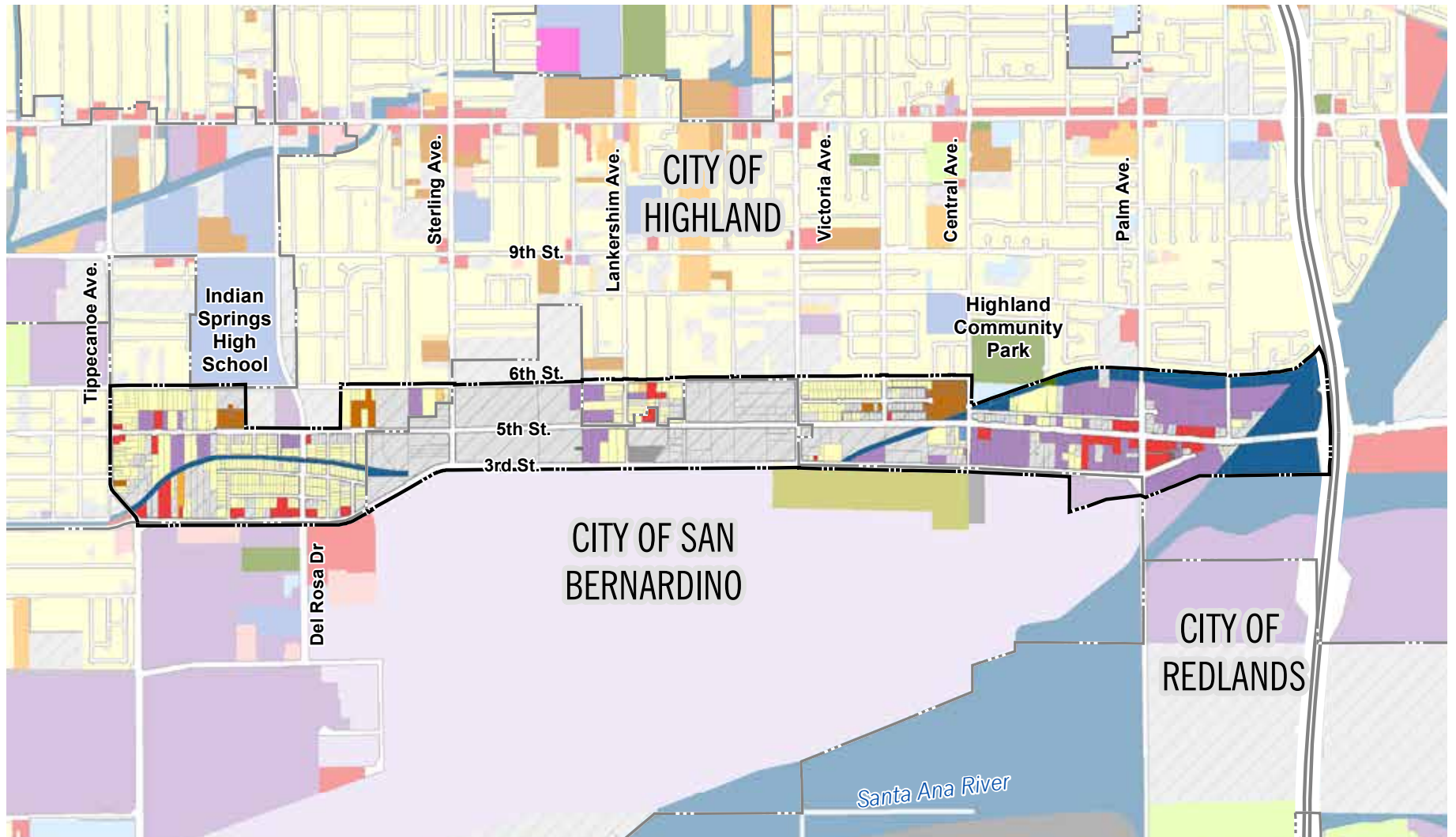
Stater Bros. Corporate Office on Tippecanoe Avenue and Harry Shepard Boulevard, San Bernardino.



Fender Music Distribution on Tippecanoe Avenue and Central Avenue, San Bernardino.

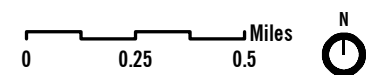
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FIGURE 3.1 EXISTING LAND USE



- | | | | | |
|--------------------------|-------------------|---------------------------|--------------------------|---------------------------|
| Project Boundary | Duplex/Triplex | Educational Facilities | Commercial | Transportation Facilities |
| City Boundaries | Mobile Home | Agriculture | Communication Facilities | Improved Flood Waterways |
| Existing Land Use | Apartment/Condo | Open Space and Recreation | Industrial | Utility Facilities |
| Single Family Detached | Public Facilities | Office | Airports | Military Installation |
| | | | | Vacant |

Sources: SANBAG, 2012,
City of Highland and
City of San Bernardino, 2017



3.1.2 OTHER CONSIDERATIONS

Airport

City of San Bernardino: The Plan Area is located in the Airport Influence Area (AIA) (Figure 3.2, Airport Influence Area) of the San Bernardino International Airport. Projects in this area must comply with the California Land Use Planning Handbook for the type of allowable development, maximum population density, site coverage, appropriate land uses, and the height of structures to prevent encroachment on navigable air space.

City of Highland: In addition to the San Bernardino International Airport's AIA, the City of Highland has established Airport Overlay Districts in its zoning code to ensure greater safety to aviators and the general public by establishing land use requirements that ensure compatibility within designated areas close to the airport and reduce harm from noise and safety hazards.

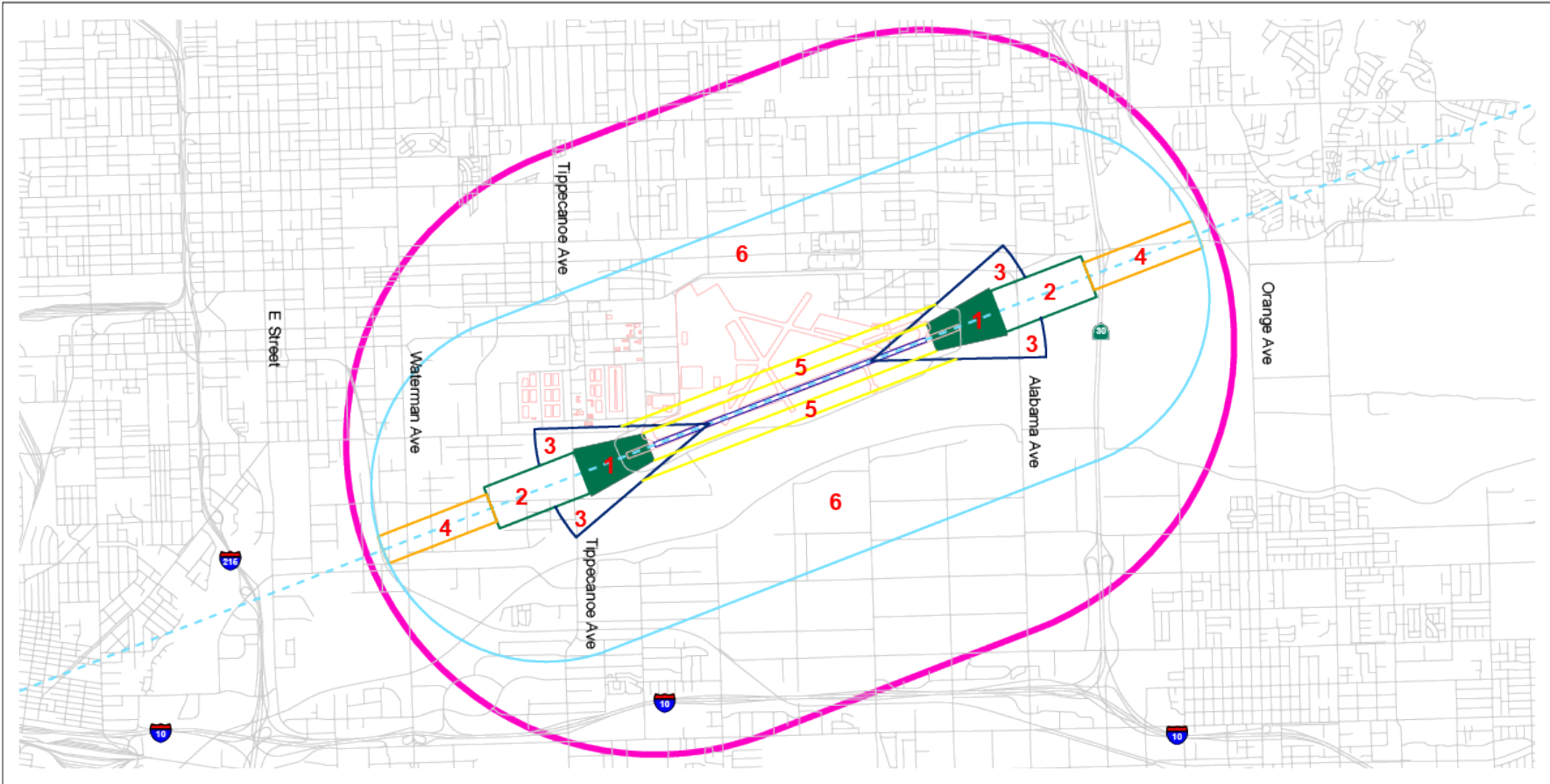
A detailed description of conditional land uses permitted in the AIA can be found in the City of Highland Municipal Code, Section 16.40.410.

Circulation

The Plan Area's transportation network is primarily auto-oriented with truck routes along major roadways. The area has limited regional bus service, however the San Bernardino County Regional Transportation Authority

(SBCTA) future Redlands Passenger Rail Project (Arrow) is located approximately one mile south of the Plan Area (start of operations estimated for 2022) and Metrolink and Amtrak train stations are located less than five miles west of the Plan Area and have the potential to increase regional connectivity and support anticipated job growth within the Plan Area. The cities of Highland and San Bernardino have plans to develop bike routes and the City of Highland is working to improve pedestrian conditions by expanding its Safe Routes to School program.

FIGURE 3.2 SBIAA AIRPORT INFLUENCE AREA



- | | | | |
|--|-------------------------------|--|---------------------------------------|
| | Runway Protection Zone | | Traffic Pattern Zone |
| | Inner Safety Zone | | Runway |
| | Inner Turning Zone | | Runway Centerline |
| | Outer Safety Zone | | 2 Mile Buffer Around Runway |
| | Sideline Safety Zone | | Airport Buildings and Surfaces |

SAN BERNARDINO INTERNATIONAL AIRPORT
 Long General Aviation Runway (24/6) Category D-VI
 California Department of Transportation
 Division of Aeronautics
 Copyright Thomas Bros. Maps (roads, airport buildings & surfaces)
 December 4, 2003
 0 2,500 5,000 10,000 Feet

Source: California Department of Transportation Division of Aeronautics

Infrastructure

Stormwater, sewer, and water systems serving the Plan Area are currently operating without any major deficiencies. Chapter 7, *Infrastructure*, provides an analysis of the existing and future needs of these systems.

Flood

The City Creek Floodway is within a FEMA 100-year flood zone and in the event of severe storms and flooding, the adjacent parcels may be adversely impacted (see Figure 3.3, *Flood Hazards*). Onsite water capture and changes to the size and configuration of storm drains may be necessary to protect future development sites and encourage desired development types. Portions of the floodway between Victoria Avenue and 210 are considered vital for recharge and may require more attention than the floodway in the western portion of the Plan Area.

3.1.3 RELATIONSHIP TO OTHER RELEVANT PLANS AND PROGRAMS

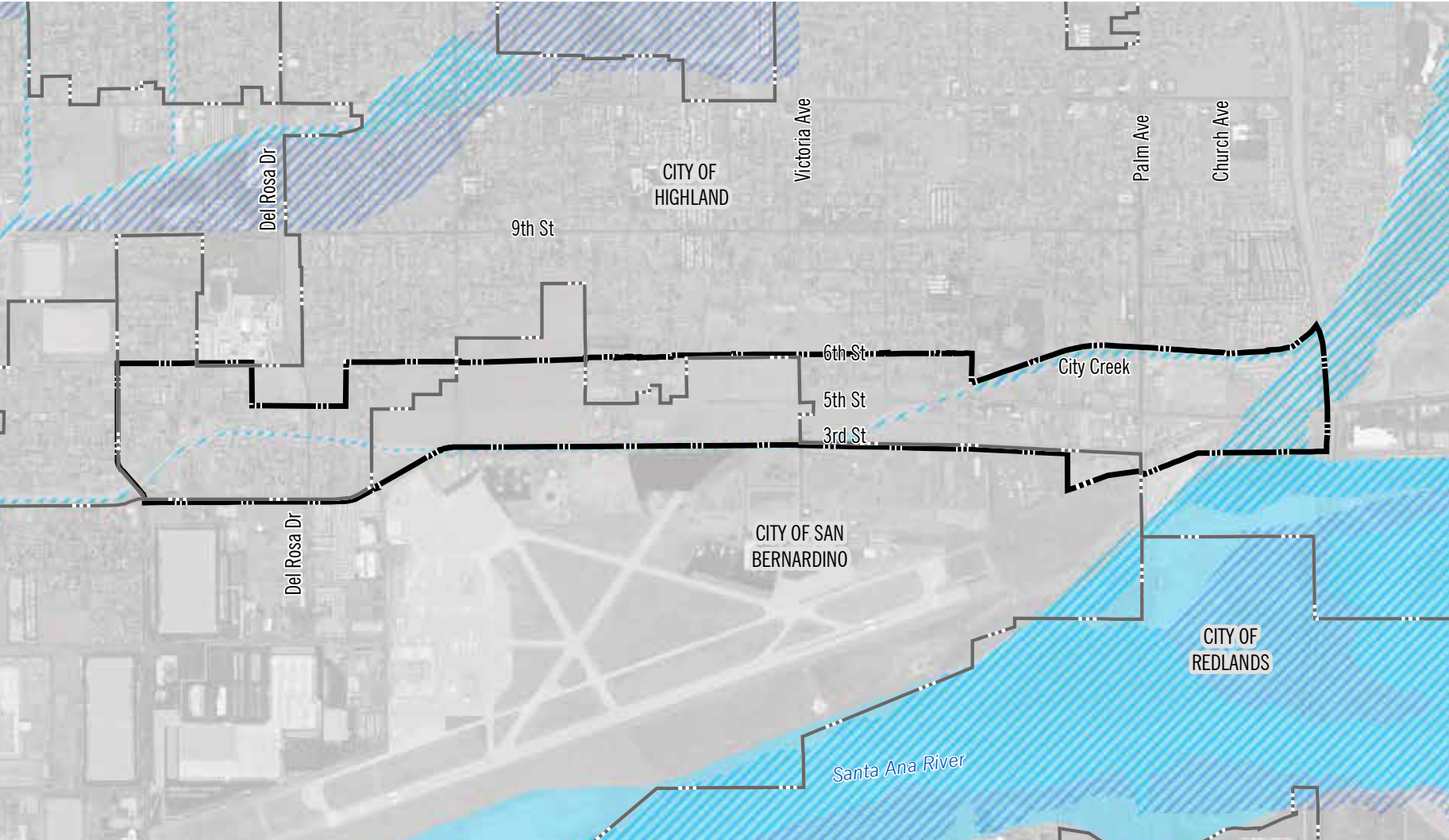
The Airport Gateway Specific Plan was prepared to provide a critical link between the intent of the proposed land uses in the cities respective General Plans, the various planning efforts in the surrounding jurisdictions, and overlay districts. The following is a list of regulatory tools and planning documents that currently govern development of the area in addition to the Specific Plan (see Figure 3.4, *Relevant Plans & Programs*). These tools and planning documents were reviewed and taken into consideration to inspire a unified vision of development for the AGSP, including seamless policies and plans that do not conflict with the surrounding form and character.

City of San Bernardino

San Bernardino Alliance California Specific Plan: The San Bernardino Alliance California (SBAC) Specific Plan was developed in 2007 to facilitate the transition of the non-airport portion of the former Norton Air Force Base from a single-purpose military use to a multi-use commercial/industrial center. The plan consists of three non-contiguous sites with six land use districts.

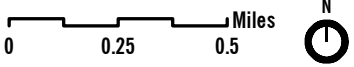
The primary goal of the SBAC Specific Plan is to facilitate and stimulate economic development and revitalization by encouraging business development and providing a broad mix of

FIGURE 3.3 FLOOD HAZARDS



Source: FEMA, SANBAG

City Boundaries	Flood Zone	500-Year FEMA Flood (0.2% Annual Chance Flood Hazard)	Flood Zone, Zone Subtype
Plan Area Boundary	100-Year FEMA Flood (1% Annual Chance Flood Hazard)	Dam Inundation Areas	



commercial, office, and industrial development opportunities. Two of the land use districts are adjacent to the Airport Gateway Specific Plan area are detailed below.

- » **Northgate District:** Southwest of the Plan Area, the Northgate District is intended to accommodate a wide variety of research and development related uses including but not limited to, manufacturing, light industrial, neighborhood commercial, and office. By combining these land uses, the Northgate District encourages business park and campus developments that support aesthetically pleasing and safe pedestrian connectivity. This area has primarily developed into an industrial area that is compatible to the distribution and industrial character envisioned within the Plan Area.
- » **Third Street District:** The Third Street District is intended to accommodate large industrial facilities, including manufacturing, assembly, and distribution centers as well as aircraft sales and service centers. Facilities in this District should support “through-the-fence operations” for businesses seeking direct access to cargo loading. As this area is built out, the number of vehicles accessing 3rd Street at Victoria Avenue will increase and impact east-west access on 3rd Street.

SBIA and Trade Center Strategic Area: The City of San Bernardino General Plan established 14 Strategic Areas to guide desired land use patterns and standards. One of these areas is the San Bernardino International Airport and Trade Center Strategic Area which emphasizes the opportunity to develop business- and aviation-oriented uses that can benefit from the proximity of the airport. Key strategies include creating a Fast Track permitting process for businesses seeking to locate within the Strategic Area and collaborating with local residents to relocate residential properties away from industrial developments.

City of Highland

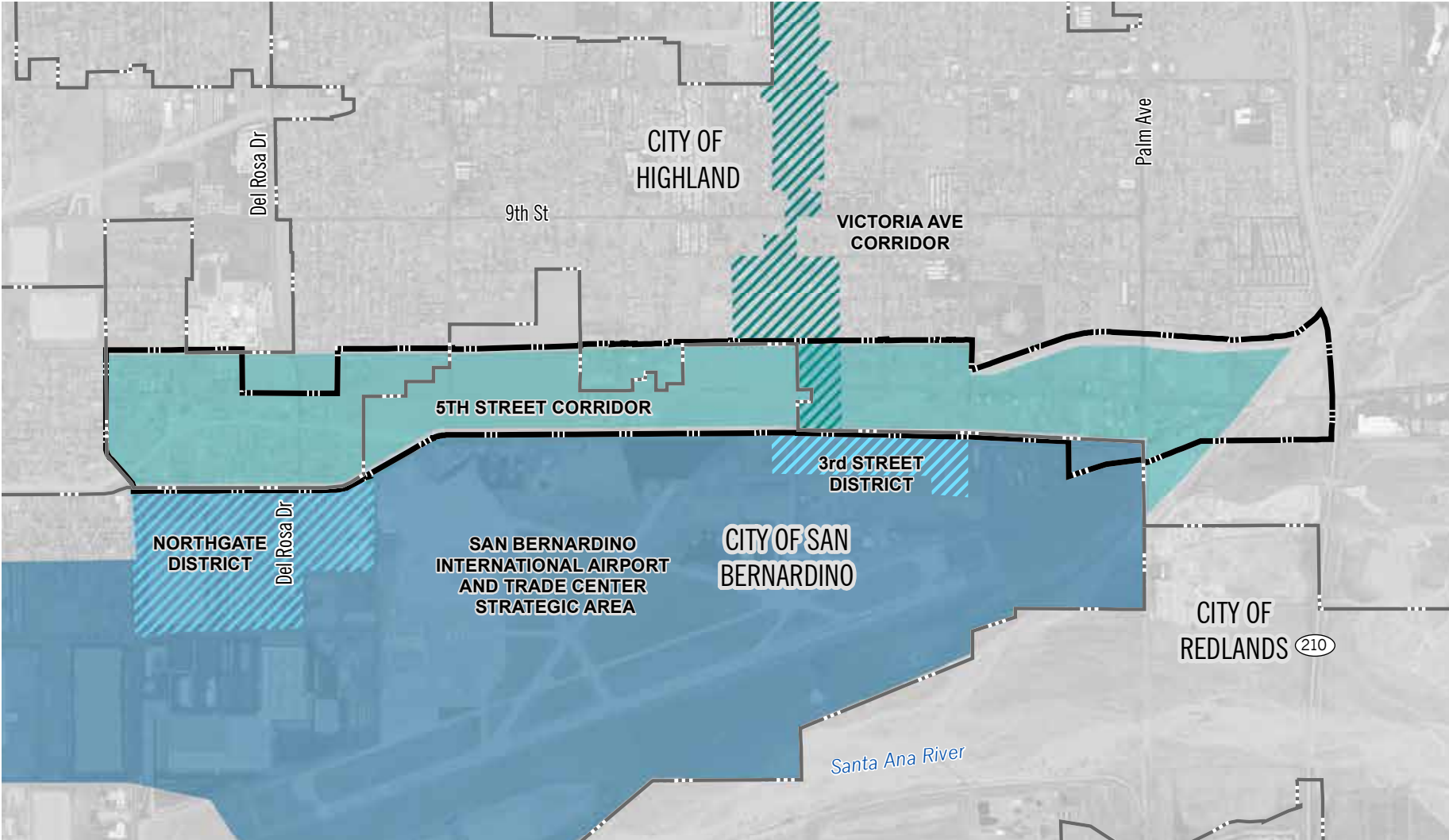
City of Highland General Plan: The City of Highland General Plan provides several tools aimed to establish goals and policies that support ongoing neighborhood and capital improvement programs throughout the City. Those tools which impact the Plan Area are summarized below.

- » **5th Street Corridor Community Policy Area:** The 5th Street Corridor Community Policy Area was developed in response to increased industrial land development and the movement of working-class jobs into the surrounding region. To take advantage of the increased demand, the primary goal of this Policy Area is to transform the 5th

Street Corridor into a major employment center and gateway to the San Bernardino International Airport.

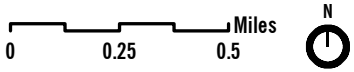
- » **Victoria Avenue Corridor Community Policy Area:** The Victoria Avenue Corridor Community Policy Area was identified as the primary entryway to the San Bernardino International Airport from 210. The intention of this Policy Area is to enhance mobility and growth opportunities along the corridor by consolidating access points and developing a major business park along Victoria Avenue within the Plan Area.

FIGURE 3.4 RELEVANT PLANS AND PROGRAMS



Source: City of Highland, City of San Bernardino

<ul style="list-style-type: none"> City Boundaries Plan Area Boundary 	<p>San Bernardino</p> <ul style="list-style-type: none"> San Bernardino Alliance California Specific Plan <p>General Plan Strategic Areas</p> <ul style="list-style-type: none"> San Bernardino International Airport and Trade Center Strategic Area 	<p>City of Highland</p> <p>General Plan Community Policy Area</p> <ul style="list-style-type: none"> 5th Street Corridor Victoria Ave. Corridor
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Specially designed monument signage that is consistent with the Airport Gateway Specific Plan theme can establish the gateways into the Plan Area and create a sense of arrival into the district. This monument sign on the west side of the airport on Tippecanoe Avenue is a good example of a primary gateway landmark feature. Gateways are discussed in further detail in Chapter 5, Design Guidelines and Standards, and Figure 5.1, Gateways and Special Treatment Edges.

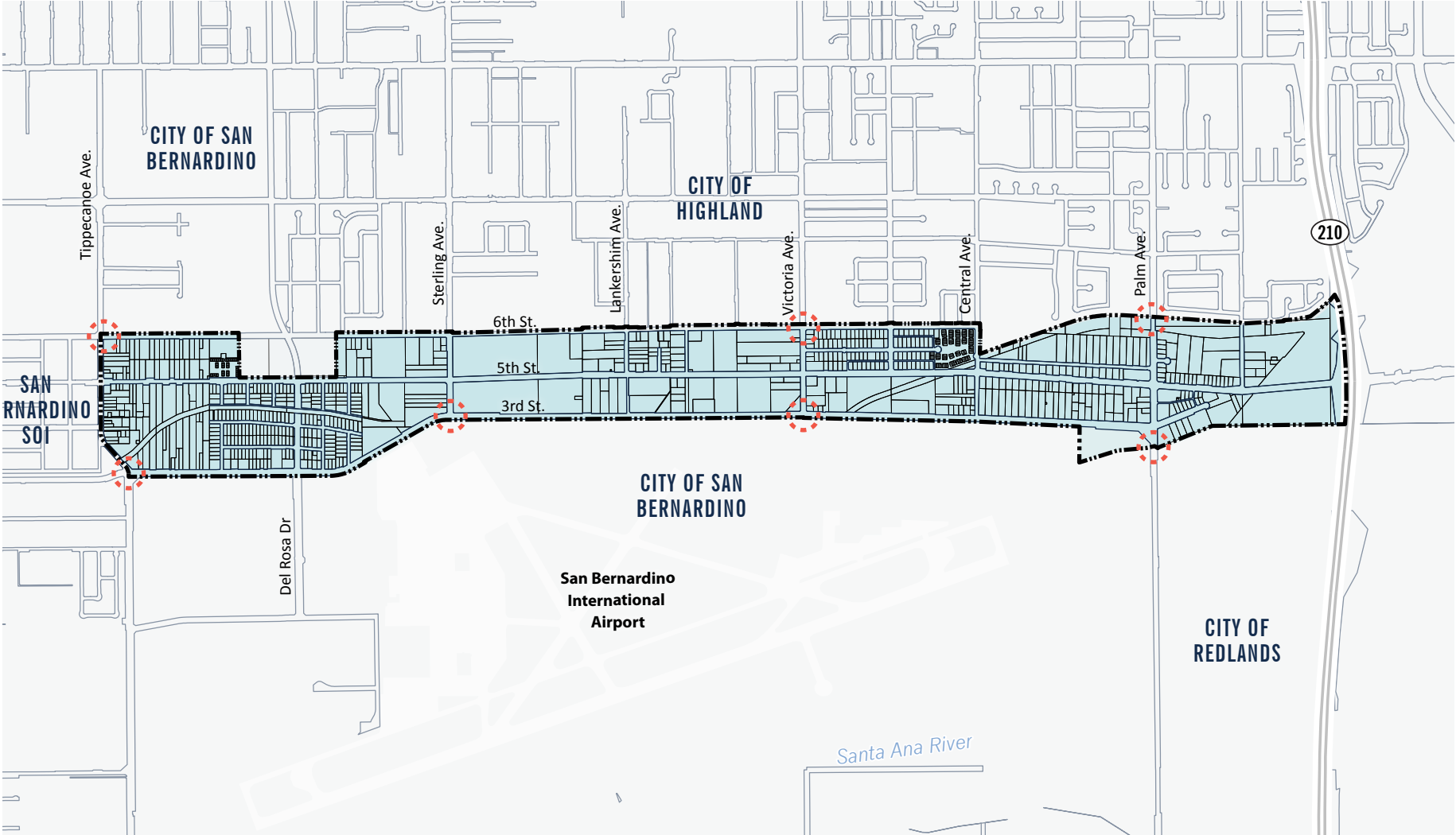
3.1.4 COMMUNITY STRUCTURE

The community structure of an area is comprised of gateways, block and parcel configurations, and streetscape characteristics. These elements provide a framework for understanding the current character and conditions, and help inform the feasibility of the Specific Plan's vision and goals.



Gateways

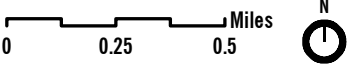
Gateways are arrival points into a project area that are often identified by notable signage, a change in building scale or character, or changes in land use. Although the Plan Area does not currently have significant monuments to identify notable gateways, the Plan Area presents some natural gateways that already serve as active points of entry. Figure 3.5, *Existing Blocks, Parcels, and Gateways*, identifies seven gateways that generally serve as the primary entry points into the Plan Area connecting surrounding residential and business communities to the Specific Plan uses. This Specific Plan will build on these existing gateways to improve the image of the Plan Area as a whole, providing an elevated and unified appearance through infrastructure, signage, landscaping, and other aesthetic improvements that should be implemented consistently across jurisdictional boundaries. Recommended gateway enhancements can be found in Chapter 5, *Design Guidelines and Standards*.

FIGURE 3.5 EXISTING BLOCKS, PARCELS, AND GATEWAYS



Source: San Bernardino County, SCAG

-  Project Boundary
-  Parcels
-  Existing Gateways Requiring Enhancement





Potential intersection for a future gateway along the Victoria Avenue corridor at the intersection of 6th Street.

Corridors

Corridors are the foundation for the AGSP and serve to provide connectivity from 210 to the San Bernardino International Airport and surrounding businesses and communities. Primary corridors within the Plan Area include 3rd Street which serves as the southernmost Plan Area boundary, 6th Street which is the northernmost boundary, and 5th Street which acts as a spine and runs directly through the middle (from east to west) of the Plan Area. It provides direct access to 210 and I-215 and connects north-south streets that serve residential neighborhoods and businesses. The physical condition of 5th Street is in average to poor condition, with varying widths of paving west of Central Avenue and east of Tippecanoe Avenue. Many portions of 5th Street are framed by vacant land on both sides of the street and the corridor lacks traffic signals and pedestrian walkways. From 5th Street, vehicles seeking access to the Airport or large-scale industrial sites southwest of the Plan Area must transition to 3rd Street where the roadway is wider and trucks have more space to maneuver.

The 3rd Street corridor is unique in that the southern side of the street borders the Airport and the northern side borders a range of land uses and undeveloped land. Due to the setback of the airport uses and vacant land prominent on the north side of the street, the 3rd Street

corridor seems desolate and underserved. This corridor serves as a notable edge to the Plan Area and must be treated carefully to ensure that any improvements create a unified and visually cohesive environment between airport uses and AGSP uses.

The 6th Street corridor has less interface with undeveloped land than the other corridors and is located just south of residential communities, the community park and library, and Indian Springs High School. Despite the residential character, 6th Street also lacks adequate pedestrian walkways and safe crossings.

Block Configurations

Streets and blocks are long-lasting design characteristics of a community (see Figure 3.5, *Existing Blocks, Parcels, and Gateways*). While buildings and land uses often change, the platting pattern of a community may remain unchanged over the centuries. Blocks and streets can be thought of as the “bones” of a community. As bones determine a person’s height, stature, and looks, block and street patterns directly affect a community’s form and the importance of key sites within it.

The study area has an interconnected street system comprised of three primary roadways running east to west, serving as frames and a backbone to the Plan Area. These roadways are intersected every 2,500-3,000 feet by secondary roadways running from the north

and ending at 3rd Street (with the exception of Palm and Tippecanoe Avenues which extend further south). This road pattern creates large rectangular blocks with some irregular-shaped blocks east of Palm Avenue and west of Sterling Avenue. The average block is approximately 650 feet deep and varies in width. Lots in the western portion of the Plan Area are significantly deeper (approximately 1,350 feet), as 3rd Street shifts further south, west of Sterling Avenue.

The residential areas typically contain small local streets which divide the large blocks into shallow blocks that are about half (approximately 350 feet) as deep as the more typical blocks. The existing grid pattern allows for efficient circulation but creates narrow corridors that can only accommodate small-scale development.

The City Creek floodway which primarily runs along 3rd Street shifts between Central Avenue and Palm Avenue on the eastern portion of the Plan Area and again between Sterling Avenue and Tippecanoe Avenue on the western end. Similar to the local street patterns, the shift in the floodway cuts through blocks and inhibits the full potential of the deeper configuration provided by the 3rd Street shift. The orientation of the floodway also creates odd shaped parcels, dead-end streets, and limited pedestrian connectivity. To accommodate large-scale development, the AGSP has identified options

for new roadway configurations and alignments including the potential realignment of 5th Street and the City Creek floodway (see Chapter 6, *Circulation*).

Parcel Configurations

Although the existing vacant land generally provides a viable and attractive opportunity for new development, many of the parcels are extremely narrow and deep or small and densely clustered (see Figure 3.5, *Existing Blocks, Parcels, and Gateways*), presenting challenges to the types of structures that can be developed. The current configurations cannot accommodate large-scale industrial facilities or business parks with large footprints and the need for ample space for truck access and loading. The types of industrial uses that are thriving adjacent to the Plan Area, such as Mattel, Inc. and the Amazon Fulfillment Center, typically require a minimum lot depth of approximately 1,800 feet and width of 1,000 feet.

The irregularly drawn jurisdictional boundary between Highland/San Bernardino also creates challenges to creating larger footprint buildings because in some areas lot size is limited by boundary lines.

The boundary is especially irregular between Victoria Avenue and (just west of) Sterling Avenue where the development of larger

building footprints is limited in size resulting from the boundary. The parcels on the San Bernardino side of the boundary tend to be large and undeveloped whereas parcels in Highland are smaller and populated with residential, commercial, or small-scale industrial properties. These contrasting uses create a noticeable conflict of character and form.

Consolidation of lots could potentially occur to create lot sizes that are more desirable for the types of development the Plan Area is trying to attract (see Section 3.2, *Economic Market Conditions*). As a result, significant consolidation of lots is possible, but it is a potential constraint since the purchase and consolidation of several small properties needed to comprise parcels large enough to accommodate industrial uses will require a concerted and well-coordinated real estate acquisition effort. Without motivated sellers or appealing property values, consolidation may not come to fruition. It is up to individual developers or property owners to assemble sites, however the Cities of Highland and San Bernardino, as well as the IVDA may be able to assist in these efforts.

3.2 Economic and Market Conditions

One of the objectives of the AGSP is to determine which new uses should be integrated into the plan to create development opportunities that revitalize the 3rd, 5th, and 6th Streets corridors into a thriving jobs center. An Economic and Market Analysis Technical Memorandum was prepared for the Plan Area to gain a general understanding of the market trends influencing the project area and how the trends would shape the recommendations in the Plan.

The market conditions analysis was used to understand the potential for new development in the area and to provide guidance regarding the types of uses the market would support and could sustain over time in this area. The assessment describes existing economic conditions, provides an understanding of the potential for new development in the area, and provides a mechanism to test whether the future development contemplated in the Plan is economically viable. The following is a summary of the findings from the memorandum.

Industrial Demand

Growth and development in warehousing and distribution is and will continue to drive demand for industrial development in the

Plan Area and throughout Southern California. Communities with adequate lot sizes and access to freeways, railways, and airports will be best positioned to capitalize on this demand. As described in Section 1, the Plan Area, located in close proximity to these transportation facilities, is well situated to attract and support warehousing and distribution facilities.

Office Demand

Two sectors will primarily drive the demand for new office development in the market area: health care and social assistance, and professional, scientific, and technical services. Employment growth in health care and social assistance will primarily support development near existing concentrations of medical offices and Loma Linda hospital. Because the subregion surrounding the Plan Area has a surplus of vacant office space, demand for new office development is limited, especially over the short and mid-term.

Retail Market Demand

The Plan Area currently provides basic convenience goods to nearby residents and businesses. There are a limited number of retail stores and restaurants along the eastern and southwestern edges of the Plan Area, and most shoppers fulfill their retail needs in one of several regional shopping centers surrounding

the Plan Area. The Inland Center and Citrus Plaza, both within a 10-minute drive of the Plan Area, provide over 2 million square feet of retail building space, and active retail corridors along Baseline Street and Highland Avenue provide shoppers with access to additional retail options.

Future retail growth in the region will likely continue to concentrate in and around existing retail centers and districts in Highland and along the I-10 corridor, places where consumers from the trade area already go for shopping, dining, entertainment, and medical services. Currently and over the next ten years, there is little to no market demand for new retail development in the Plan Area, except for small retail service areas that will cater to the daytime employment base at buildout.

3.3 Opportunities and Constraints

The following is a list of the opportunities and constraints that were the foundation for the project concepts, approaches, and decision considerations included in each chapter of this Specific Plan. Issues identified here are intended to provide a comprehensive picture of the items that must be resolved or implemented to achieve the AGSP vision.

OPPORTUNITIES

1. Proximity to an international airport and within close proximity to other major transportation facilities makes the plan area well situated to support warehousing and distribution facilities
2. At the time this document was prepared, there is virtually an unlimited demand for warehousing and a mid- to long-term demand for manufacturing
3. The 679-acre project area contains 223 acres of readily available undeveloped land to attract new development
4. Undeveloped parcels adjacent to residential edges help facilitate natural buffers and transitions to airport uses
5. Blank canvas to improve visual appeal and cohesion with the application of consistent design guidelines and enhanced landscaping treatments
6. Catalyst to provide development opportunities and implement the General Plan goals and policies for the cities of Highland and San Bernardino
7. Create economic value in underutilized areas of San Bernardino and Highland
8. Momentum generated from the success of industrial development within Alliance California Specific Plan can help attract investors into the plan area
9. City of Highland has begun some roadway repairs that set standards for continued infrastructure improvements
10. Improvements can incorporate thematic elements, such as signage, art, landscaped parkways and wayfinding to develop continuity in the area
11. City Creek floodway could feasibly be relocated or undergrounded to allow for block reconfiguration and lot consolidation
12. Planned Safe Routes to School improvements could encourage additional pedestrian improvements along 6th Street

CONSTRAINTS

1. To achieve the vision for the corridor as an industrial mixed use area, cities must rely on motivated sellers and favorable property values to prompt lot consolidation and redevelopment of existing residential uses located along Del Rosa Drive and north of 5th Street between Victoria and Central Avenues.
2. Blocks are wide but shallow and cannot accommodate large building footprints without street realignment or lot consolidation
3. Irregular city boundaries cut across blocks that could otherwise be consolidated to create larger parcels
4. The City Creek floodway bisects blocks and creates shallow lots
5. Existing small and narrow lots preclude the type of industrial development envisioned for the plan area
6. Parcel consolidation is possible but would require a well-coordinated real estate effort
7. Bikeways and designated truck routes are both permitted on 3rd Street and 5th Street, creating safety concerns and conflicts to traffic patterns
8. Lack of connectivity between 3rd Street and 5th Street prevents easy access to 3rd Street facilities and encourages heavier traffic along 5th Street
9. Planned roadway improvements, such as the addition of lanes on 3rd Street, cannot expand south into the airport property due to Federal Aviation Administration (FAA) limitations and must be accommodated by extending lanes north (if needed)
10. Costs for the realignment of roadways or floodway infrastructure that would be needed to create larger parcels may be prohibitive
11. Redevelopment of existing residential neighborhoods (in support of #1).

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CHAPTER 4.0

**LAND USE &
DEVELOPMENT
STANDARDS**

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CHAPTER 4.0 LAND USE & DEVELOPMENT STANDARDS

4.1 Overview

This chapter describes the intended future land use for the development area covered by the Specific Plan (Plan Area). The following designations, permitted uses, and development standards are provided to guide building form and site design as new development occurs. The area will likely be developed over an extended period, therefore, this Specific Plan has been tailored to respond to changing economic demands. The standards provided in this chapter are broad to provide flexibility in implementation, yet specific when necessary to provide sufficient direction to carry out the AGSP's vision and objectives. The AGSP land plan promotes a range of opportunities envisioned for the airport-adjacent planning area.



The Airport Gateway Specific Plan is envisioned to create opportunities for new businesses in proximity to the San Bernardino International Airport.

Transition of Residential to Industrial Uses in the AGSP

The AGSP planning area currently contains an estimated 760 residential units. As part of the implementation of the AGSP, these residential units would eventually be removed and replaced with the mix of industrial/business park uses proposed by the AGSP. As such, the proposed project would relocate the existing population within the planning area.

At present, of the residents within the AGSP planning area, 38 residents are located within the City of San Bernardino, while the majority (2,433 residents) reside in the City of Highland. As such, while the proposed project would result in the relocation of 2,471 persons, this action is not anticipated to result in direct or indirect population growth in the area.

As part of this project, a conceptual relocation plan for the 760 housing units has been prepared and outlines a reasonable manner by which the Cities of San Bernardino and Highland, IVDA, and the San Manuel Band of Mission Indians would facilitate the relocation of housing as developments are proposed. This plan is conceptual in nature and is intended to provide future developers developing land within the AGSP that contains existing occupied housing with an outline of the components required to be included in future relocation plans. The purpose of a relocation plan is ultimately to ensure that persons who reside within housing requiring demolition as a result of a given proposed development who would be displaced by project development are provided resources to facilitate each impacted household's relocation.

4.2 Land Use Designations

The primary land use designation for the Plan Area is Mixed-Use Business Park. The Specific Plan is regulated by the application of three land use designations: Mixed-Use Business Park, Right-of-Way, and Floodway. Each designation is shown in Figure 4.1, *Land Use Plan*, and Table 4.1, *Buildout Summary*, provides the maximum buildout capacity for the Plan Area.

Mixed-Use Business Park (MU-BP)

The Mixed-Use Business Park designation is intended to regulate flexible development of economic- and employment-oriented uses that benefit from and compliment the nearby airport. The Plan Area allows for a mix of industrial, related office uses, especially technology-oriented business parks, and supporting retail and services to create an active corridor. General and innovative industrial uses are prioritized for the area. Primary uses are intended to promote jobs and include light industrial, warehousing, distribution, logistics, light manufacturing, and research and development functions. Secondary uses, such as commercial, retail and service businesses, including hospitality uses such as a hotel and conference center, are intended to support primary functions of the corridor. (Maximum floor area ratio 0.70).

Right-of-Way (ROW)

The Right-of-Way designation makes up public roads, including curbs, sidewalks and parkways, within the Plan Area. This designation emphasizes multi-modal connectivity, safety, and promotes a visually attractive interface between the built environment and roadway network.

Floodway (F)

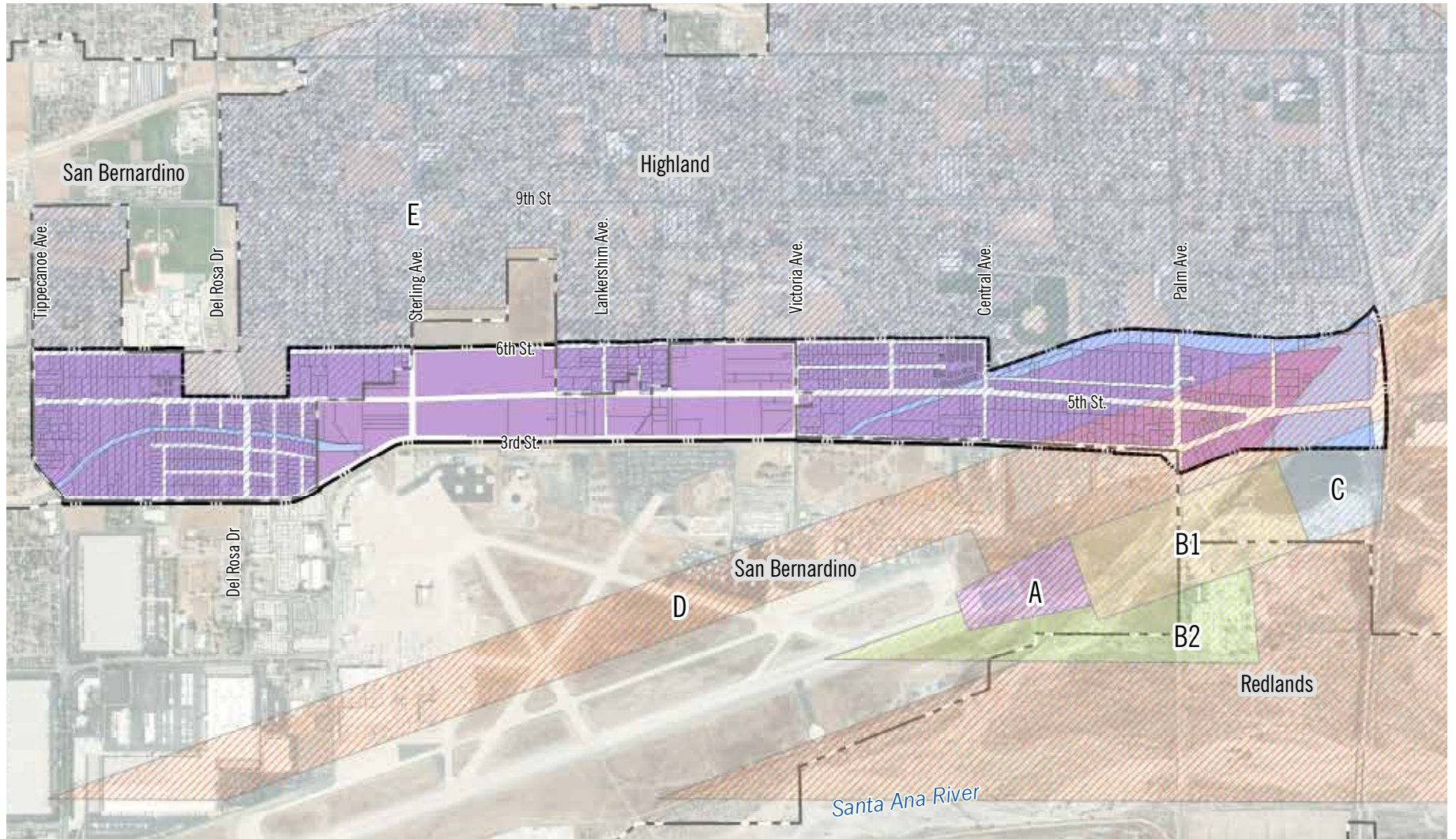
Designates floodway/flood control areas within the Plan Area. These areas allow for the continuation, maintenance, and expansion of natural or man-made flood control facilities.

Airport Overlay

Several industrial parcels in the east end of the AGSP are located within the City of Highland's Airport Overlay Zone (Airport Safety Zone D) as illustrated on Figure 4.1.

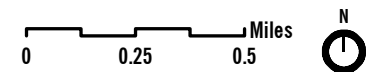
The airport overlay zone and safety provisions are established to provide greater safety to both aviators and the general public by establishing requirements for land use compatibility reviews within designated areas in close proximity to an airport or heliport. Evolving air transportation services in the City of San Bernardino can potentially complement economic growth in Highland and create competitive advantages for its businesses. However, the nature of airport

FIGURE 4.1 LAND USE PLAN



Source: PlaceWorks, 2018

- | | | | | |
|-------------------------|-----------------|-----|--|--|
| Mixed-Use Business Park | Floodway | ROW | Airport Safety Zones | C - Outer Safety Zone - Moderate Risk Level |
| Plan Area Boundary | City Boundaries | | A - Runway Protection Zone - Very High Risk Level | D - Traffic Pattern Zone - Low Risk Level |
| | | | B1 - Departure/Inner Safety Zone - High Risk Level | E - Airport Influence Zone - Negligible Risk Level |
| | | | B2 - Inner Turning Zone - Moderate Risk Level | |



operations and their accompanying noise and safety hazards require careful land use planning on adjacent lands to ensure the safety of residents and passengers alike, and to guard Highland businesses and property owners to the greatest extent possible from the potential hazards that could be created by operations at the San Bernardino International Airport, especially by arriving and departing flights that fly over the southern portion of Highland.

In addition to the requirements of this Specific Plan, the parcels located in the airport overlay are also subject to the compatibility provisions of the Highland Municipal Code Section 16.40.410, *Airport Overlay Zone and Safety Compatibility*. The overlay zone may provide additional conditions or limitations on the types of uses that are permitted or prohibited and may specify additional design limitations (e.g. heights, allowable capacities or square footage) for the properties within the overlay.

Should the boundaries or requirements of the Airport Overlay areas change over time, the map and provisions adopted and codified by the City of Highland shall prevail.

Avigation Easements

Avigation easements may be required for new projects depending on their proximity to the airport and shall be evaluated on a case by case basis. Development Permit checklists for projects within the Specific Plan boundaries shall include an evaluation by the San Bernardino International Airport Authority (SBIAA) for the potential need of an avigation easement.

TABLE 4.1 BUILDOUT SUMMARY

Land Use	Total Acres	Non-Residential Square Feet³	Hotel Rooms⁴
Mixed Use Business Park¹ (MU-BP)	468.29	9,271,255	150
Right-of-Way (ROW)²	141.05	0	0
Floodway (F)²	69.80	0	0
TOTAL	678.13	9,271,255	150

- 1. A mix of industrial (and supporting) uses are permitted in the specific plan; the size and type of activity may vary substantially from one facility to another and may include manufacturing or warehousing, and may include office, research or associated functions. See Table 4.2, Permitted Uses, for a detailed list of permitted, conditionally permitted, and prohibited uses.*
- 2. These designations are not considered development areas but have been included in the statistical summary to account for all acreage within the AGSP boundary.*
- 3. For purposes of the analyses prepared as part of this specific plan and associated Environmental Impact Report, the following mix of uses were assumed in the Industrial Mixed Use designation: 15% industrial distribution/logistics (large scale), 70% general/light industrial and logistics (small scale), 13% Tech business park, and 2% commercial/retail/service uses. A range of floor area ratios (FARs) from 0.35 to 0.70 were applied to the assumed mix of uses to determine the maximum non-residential square footage for the specific plan area. This mix was assumed based upon current market demand (see Appendix A: Economic Opportunities Memorandum) but is not intended to serve as a limiting factor for the type and mix of development allowed. The cumulative total square footage of all projects in the AGSP area shall not exceed the maximum square footage allowed in this table and the associated roadway capacities planned for in Chapter 6, Mobility.*
- 4. This statistical summary includes square footage for a hotel use, the maximum total number of rooms allowed is provided to guide future land use and development.*

4.3 Permitted Uses

Table 4.2 regulates the specific uses allowed by the AGSP. Regulation of allowable/prohibited uses for each land use activity are identified as follows:

- » Permitted use (P): the primary use of a building or property that does not require discretionary approval
- » Conditionally permitted use (C): requires discretionary action for the approval of a conditional use permit
- » Prohibited use (X): identifies a use or activity that is not permitted
- » Accessory use (A): a use that is incidental or secondary to the primary use of the land or building and is located on the same property
- » Temporary use (T): a limited time use of no more than a 3-year term that may be permitted as a primary or accessory use of a property, requires issuance of a temporary use permit and/or a special event permit and may require site improvements
- » Any use not specifically listed in Table 4.2, *Permitted Uses*, shall be reviewed by the Community Development Director or designee for consistency with the Land Use Plan and intent of the AGSP vision

Submittal for new development adjacent to areas zoned for residential uses may require additional design review, site considerations, and/or conditions of approval. Uses with these requirements are denoted with a * in the 6th Street column of Table 4.2, *Permitted Uses*.

The approval process for each use type is provided in Chapter 8, *Administration, Implementation and Financing*.

TABLE 4.2 PERMITTED USES

LAND USE ACTIVITY	MU- BP	6TH ST <small>*Requires Additional Design Considerations or Conditions of Approval</small>	<i>P=PERMITTED</i> <i>C=CONDITIONALLY PERMITTED</i> <i>X=NOT PERMITTED</i> <i>T=TEMPORARY USE</i> <i>A=ACCESSORY</i>
AUTOMOTIVE, TRANSPORTATION, & PARKING			NOTES:
Automotive and light truck repair (passanger vehicles, not commercial)	P		
Fleet storage	T		
Automotive rental agencies	P		
Boat and camper repairs and RV	P		
Bus, rail, tax, and ride share stations	P		
Car wash	C	*	
Commercial parking facilities (off site)	T		
Driving schools	A		
Fuel dealers	C		Fuel Dealer. A business that sells heating oil, propane and other fuels directly to end users. Business operations may include deliveries for fuel to customers. Fuel dealers are separate uses from automobile service stations.
Funeral Parlors/ mortuaries/ crematoriums	C		
Gasoline Service Stations with or without ancillary commercial uses only at the intersections of major and secondary arterials, with or without alcoholic beverage sales	P		
Heliports/ helipads	C	*	
Impound Vehicle Storage Yards (with or without towing)	P	*	
Recreational vehicle storage (screening of outdoor storage required)	P		
Tire retreading and recapping	X		
Towing services	C		
Truck stops	X		
Truck wash	A		

LAND USE ACTIVITY	MU- BP	6TH ST <small>*Requires Additional Design Considerations or Conditions of Approval</small>	<i>P=PERMITTED</i> <i>C=CONDITIONALLY PERMITTED</i> <i>X=NOT PERMITTED</i> <i>T=TEMPORARY USE</i> <i>A=ACCESSORY</i>
Vehicle wrecking, salvage and storage	X		
AGRICULTURAL USES			NOTES:
Agricultural services, including soil preparation services, crop services, veterinary services, other animal services, farm labor and management services, and landscape and horticultural services, for others on a contract or fee basis. Excludes poultry hatcheries.	C		OSHA/Dept of labor defines businesses in this category as: Soil preparation services, Crop services, Vet services (livestock and animal specialties), Farm labor and management services (contract labor), Landscape and horticultural services (lawn, garden, shrub and tree services)
Packing houses	X		
ENTERTAINMENT / RECREATION			NOTES:
Adult Entertainment	C		
Athletic and health clubs (indoor and outdoor)	C		
Auditoriums, convention halls, concert and performing art venues	C		
Banquet Hall	C		
Commercial recreational facilities (indoor) uses include, but are not limited to bowling alleys, billiard parlors, ice/roller skating rinks, indoor racquetball courts, indoor climbing facilities, soccer, and arcades.	C		
Winery or microbrewery tasting room or distillery	A		Accessory to a winery/brewery manufacturing or distribution facility.
INDUSTRIAL			NOTES:
Assembling, cleaning, processing, repairing or testing of products (except vehicle-related), excluding explosives, and welding conducted entirely within an enclosed structure	C	*	
Contractor's storage yards including the storage of equipment, materials and vehicles for construction industry contractors (screening of outdoor storage required)	P	*	

LAND USE ACTIVITY	MU- BP	6TH ST <small>*Requires Additional Design Considerations or Conditions of Approval</small>	P=PERMITTED C=CONDITIONALLY PERMITTED X=NOT PERMITTED T=TEMPORARY USE A=ACCESSORY
Manufacturing or fabrication of products from parts already in processed form that do not create smoke, gas, odor, dust, sound, or other objectionable influences to surrounding uses. Uses include, but are not limited to furniture manufacturing and cabinet shops, laundry and dry cleaning plants, bottling plants, sign fabrication, printing/ publishing, and food and beverage manufacturing, and similar	P	*	
Manufacturing or fabrication of products from unprocessed materials. Uses include, but are not limited to metal and plastic processing, pharmaceuticals, cosmetics, and similar	C		
Outdoor storage	P	*	Includes equipment, vehicles, trailers, and non-hazardous materials Shipping container storage (beyond 30 days) shall require the approval of a Conditional Use Permit. Subject to applicable screening requirements as identified in Chapter 5, <i>Design Guidelines</i> .
Finishing and maintenance shops including but not limited to powder coating, sign painting, and similar	X		
Warehousing, including distribution and logistic facilities loading/ unloading and storage areas	P	*	Subject to applicable screening requirements as identified in Chapter 5, <i>Design Guidelines</i> .
INSTITUTIONAL & RELIGIOUS FACILITIES			NOTES:
Churches	P		
Vocational educational institutions (public or private)	C		
Educational service, including childcare facilities	A		Accessory to a corporate headquarters or business complex, providing on-site childcare for employees.
Membership organizations, including meeting halls, clubs, and fraternal lodges	C		
Other religious facilities	P		
Political or philanthropic headquarters	P		

LAND USE ACTIVITY	MU- BP	6TH ST <small>*Requires Additional Design Considerations or Conditions of Approval</small>	<i>P=PERMITTED</i> <i>C=CONDITIONALLY PERMITTED</i> <i>X=NOT PERMITTED</i> <i>T=TEMPORARY USE</i> <i>A=ACCESSORY</i>
OFFICE, PROFESSIONAL & SERVICES			NOTES:
Office-professional, clerical, administrative, and executive as well as other related uses (architects, engineers, software developers, real estate, attorneys, accountants, travel agencies, etc.). Includes shared work spaces (i.e. we work)	P		
Office- medical, dental, veterinary, or animal boarding facilities except adjacent to residences.	P		
Office- research and development (not including laboratories)	P		
Clerical and professional offices (incidental to primary use)	A		Accessory to a warehouse, distribution center, or industrial use.
Financial/mortgage services and institutions	C		Could be accessory to a real estate or other professional office but don't want to encourage banks in this area.
Insurance services	P		
Laboratories: chemical, dental, electrical, optical, mechanical, and medical	C		
Tech Park/ Business Park	P		
PUBLIC & SEMI-PUBLIC			NOTES:
Ambulance services	C	*	
Fire and police facilities	P	*	
Hospital	X		
Library	P		
Public administration buildings	P		
Public works maintenance yard	P		
Public utility services offices	P		
Public utility uses, distribution and transmission substations and communication equipment structures	C	*	
Recycling facilities: large collection facilities and processing facilities (indoor)	C		Consistent with/refer to HMC 16.44.170

LAND USE ACTIVITY	MU- BP	6TH ST <small>*Requires Additional Design Considerations or Conditions of Approval</small>	<i>P=PERMITTED</i> <i>C=CONDITIONALLY PERMITTED</i> <i>X=NOT PERMITTED</i> <i>T=TEMPORARY USE</i> <i>A=ACCESSORY</i>
Social Service Centers	X		
RETAIL & COMMERCIAL			NOTES:
Appliance repair	P		
Art supply, glass shops, and similar	C		
Banks, savings and loans, credit unions	C		
Carpenter and cabinet shops	P		
Convenience market	P		
Electronic Sales electrical and related parts; electrical appliances, motors, and devices; radio, television, computers, etc.	P		
Florist shop	P		
Furniture stores (including repair and upholstery)	P		
Hotels	C		
Janitorial services and supplies	P		
Laundry pickup and delivery services	P		
Locksmith shops	P		
Motels	X		
Newspaper and magazine shops	P		
Office and business machine service and repair	A		
Outdoor contractor's, lumber, and rental yards with storage areas for building supplies	T	*	
Personal Services	A		
Personal storage including self-service mini-storage	P		
Pharmacy	C		
Plumbing shops and supplies	P		
Printer/Graphic Reproduction (blueprinting, photocopying, printing shops and the like)	P		

LAND USE ACTIVITY	MU-BP	6TH ST <small>*Requires Additional Design Considerations or Conditions of Approval</small>	<i>P=PERMITTED</i> <i>C=CONDITIONALLY PERMITTED</i> <i>X=NOT PERMITTED</i> <i>T=TEMPORARY USE</i> <i>A=ACCESSORY</i>
Postal and shipping services	P		
Swap Meets	P	*	
Swimming pool and spa sales	P		
Swimming pool supply and cleaning services	P		
Tailor shops	C		
Vending machine service and repair	X		
Weight reduction center	X		
WHOLESALE			NOTES:
Lumber yard, textiles and fabrics, flowers and floral supplies, and similar with sales to a trade group or registered professionals	P		
RESIDENTIAL			NOTES:
Dwelling unit for a full-time security guard and family	A		
Emergency Shelters	P		
Mobile Home Dealers (sales and service)	X		
All Residential	X		
RESTAURANTS			NOTES:
Bakery shops and cafe	P		
Restaurant drive-through	A/C		
Restaurant without and with alcoholic beverage sales and/or entertainment	P/C		Restaurants with alcoholic beverage sales require a CUP
MISCELLANEOUS			NOTES:
Antennas, satellite and vertical	C	*	
Auction house	X		
ATM	P		
Bakery/food preparation	P		
Billboards	X		

LAND USE ACTIVITY	MU- BP	6TH ST <small>*Requires Additional Design Considerations or Conditions of Approval</small>	P=PERMITTED C=CONDITIONALLY PERMITTED X=NOT PERMITTED T=TEMPORARY USE A=ACCESSORY
Communication and telecommunication facilities (radio and television, not including wireless telecommunication facilities)	C	*	
Crematory	C		
Exterminators	P	*	
Kennels and catteries	C		
Minor and major wireless telecommunication facility	C	*	
Mining/extraction, including aggregate, coal, gas, metal and oil	X		Permitted/prohibited uses identified in this Plan do not extend beyond 3rd Street (the AGSP southern boundary).
Minor Wireless telecommunication facility	A	*	Must be stealth or screened from view from residential or public uses fronting 6th Street.
Outdoor horticultural nurseries	C		
TEMPORARY USES			NOTES:
Farmers market	T		Subject to Chapter 10.5, Division 17 of the State of California Food and Agricultural Code
Fireworks stands	X		
Flea market/swap meet	X		
Food carts	X		
Food trucks	T	*	
<i>For the City of Highland refer to HMC Section 16.08.120 for regulation of temporary occupancy permits. For the City of San Bernardino refer to SBMC Chapter 16.70 for regulation of temporary use permits</i>			

TABLE 4.3 GENERAL STANDARDS

	Industrial and Distribution Uses	Tech Business/ Office Park Uses	Commercial/ Hotel Uses
Minimum Lot Size	1 acre	20,000 sq.ft.	10,000 sq. ft.
Maximum Floor Area Ratio	0.75	0.75	0.50
Maximum Lot Coverage	60%	60%	60%
Maximum Height ⁽¹⁾	40 feet	40 feet	50 feet ⁽²⁾
Notes 1: All maximum building heights are subject to limitations imposed by the San Bernardino International Airport Land Use Compatibility Plan for the for the various airport safety areas/zones, including runway safety area, object free area, obstacle free zone, and runway protection zone. 2: Hotel uses may have a maximum building height of 60 feet if located south of 5th Street.			

4.4 Development Standards

This section provides site development standards that govern development in all areas of the Plan Area. The development standards shall apply to all development projects and activities accommodated by the Specific Plan. In addition to the development standards in this section, Chapter 5, *Design Standards and Guidelines* shall apply to projects and includes topics such as:

- » Building Orientation
- » Parking, Loading and Storage
- » Walls, Fences and Screening
- » Building Form, Mass and Scale
- » Landscape Standards and Guidelines
- » Streetscapes and Parkways
- » On-site signage
- » Lighting
- » Sustainable Design and Green Measures

The provisions of the AGSP shall prevail over the zoning standards provided in the development codes for Highland and San Bernardino. Where the Specific Plan is silent, the code sections from each respective city shall apply.

4.4.1 GENERAL STANDARDS

Projects within the AGSP shall meet the minimum standards set forth in Table 4.3, *General Standards* for the following:

- » Minimum lot size
- » Maximum Floor Area Ratio
- » Maximum lot coverage
- » Maximum height

4.4.2 BUILDING SETBACKS

- » Building setbacks from streets, parcel lines, other buildings and internal circulation shall adhere to the standards provided in Table 4.4, *Setback Requirements*.
- » Project applicants/developers shall be responsible for project impacts on adjacent rights-of-way and constructing street segments (and necessary improvements) to match street cross sections provided in Chapter 6, *Mobility*.

4.4.3 OTHER USE CONSIDERATIONS

Retail Sales Incidental to an Industrial Use

Retail sales and service incidental to a principally permitted use are allowable provided that the following standards are met:

TABLE 4.4 SETBACK REQUIREMENTS

Category	Industrial and Distribution ⁽²⁾		Tech Business/ Office Park ⁽²⁾		Commercial/Hotel ⁽²⁾	
	Landscape Setback	Building Setbacks	Landscape Setback	Building Setbacks	Landscape Setback	Building Setbacks
5th Street ⁽¹⁾	20'	80'	20'	20'	15'	15'
6th Street ⁽¹⁾	30'	80'	30'	60'	20'	40'
3rd Street ⁽¹⁾	20'	50'	20'	20'	20'	15'
Tippecanoe ⁽¹⁾	15'	80'	15'	60'	15'	40'
Del Rosa Dr ⁽¹⁾	15'	80'	15'	20'	15'	15'
Victoria Ave ⁽¹⁾	15'	80'	15'	20'	15'	15'
Collectors ⁽¹⁾	15'	50'	15'	20'	15'	15'
Local Streets ⁽¹⁾	10'	25'	10'	20'	5'	15'
Side (adjacent local street) ⁽¹⁾	10'	25'	10'	20'	5'	15'
Side (interior)	0'	10'	0'	10'	0'	10'
Rear	0'	10'	0'	10'	0'	10'
Building to Building	0'	30'	0'	30'	0'	20'

Notes

- 1: Setbacks shall measured be from back of sidewalk as illustrated in Section 5.7.2 *Roadway Adjacent Landscaping* and Figures 6.2 through 6.5 of Chapter 6, *Mobility*.
- 2: Setbacks other than those listed in the table above may be considered at the discretion of the Planning Commission.

- a. The operations are contained within the main structure which houses the primary use;
- b. Retail sales occupy no more than 15% of the total building square footage;
- c. No retail sales or display of merchandise occur(s) outside the structure(s); and
- d. All products offered for retail sales on the site are manufactured, warehoused, or assembled on the premises.

4.4.4 STREETSCAPES

Streetscapes visually tie the various land uses and amenities of the Plan Area together using elements such as landscaping, signage, street furniture, lighting, and sidewalks. Streetscape requirements (minimum widths, planting requirements, etc) illustrations are provided in Figures 6.2 through 6.5 in Chapter 6, *Mobility* and requirements for streetscape and Section 5.8.2, *Roadway Adjacent Landscaping* and Section 5.8.3, *Entries, Key Intersections and Streetscapes*. Setbacks are measured from the back of sidewalk as illustrated in these sections.

4.4.5 ON-SITE LANDSCAPE REQUIREMENTS

- » A minimum of 15% of the gross parcel must be landscaped.

- » Informal groupings of ornamental trees, shrubs, and vines shall be planted between sidewalks and walls to soften their appearance.

4.4.6 PARKING

- » Minimum parking for commercial, hotel and industrial uses shall be provided in accordance with parking standards as specified in the City of San Bernardino Development Code, Chapter 19.14 *Off-Street Parking Standards* and Chapter 16.52, *Off-Street Parking Standards* of the Highland Municipal Code.
- » Shared, bundled, or pooled parking, off-site parking, or valet parking plans are permitted within the AGSP subject to approval by the respective jurisdictions.
- » Electric vehicle charging facilities are required and must comply with the provisions of the jurisdiction of the property in which it is located.
- » Minimum bicycle parking for nonresidential uses shall be provided at a rate of 1 space per 10,000 square feet of space; or one bike rack per 30 parking spaces with a 3 bike rack minimum.
- » In cases where additional bicycle parking spaces are required as a result of an addition to an existing building, the spaces shall be calculated based on the

total number of bicycle parking spaces provided for the existing building plus the number of bicycle parking spaces provided for the addition.

- » Bicycle parking shall be located near office entrances with good visibility, and shall provide racks or other features to secure them. _
- » Stand by truck parking shall be accommodated on-site or in an identified truck parking lot, and is not within the public right-of-way. See Section 6.3, *Truck Access and Circulation* for more information about Designated Truck Parking Lots.

4.4.7 SIGNAGE

Because of their high visibility, signs are prominent elements of the physical environment that can help navigate people through the Plan Area. Interesting sign designs can contribute to the unique character of this area by creating a sense of place. All signs in the AGSP will also be subject to the City of San Bernardino Sign Regulations (Chapter 19.22 of the Development Code) and City of Highland by Chapter 16.56 of the Highland Municipal Code.

Prohibited Signs:

- » Advertising signs, such as billboards.

- » Pole-signs.
- » Rooftop signs.

Addresses

- » Street addresses shall be included on all freestanding signs with minimum six (6) inch numerals.
- » Street address numerals should also be located on building facades so that they are easily seen from the street.

Business Sign Design and Content

- » Utilize an icon or graphic in street signage to allow visitors of the AGSP to easily identify when they have entered or exited the project area.
- » Minimize the amount of text used in signage to prevent a cluttered look along the streetscape.
- » Signs shall integrate a unifying theme of the industrial and business park into their design, which could include aviation-related accents.
- » All signs must be uniform in design, color, lettering style, size, and placement.
- » Signage shall be restricted to listing the tenant(s) only and may either be wall mounted or freestanding. There shall be no exposed fasteners. All edges are to be ground smooth.

- » Additional provisions regarding the design of on-site signs can also be found in Chapter 5, *Design Standards and Guidelines*.

Number of Signs Permitted

Industrial or Business Park Uses:

- » **Building Mounted Signs:** One sign for each 1,000 square feet of building elevation adjacent to or clearly visible from a key street or one sign for each elevation facing a key street, whichever is greater. Key streets include: 3rd and 5th Streets, Tippecanoe Avenue, Sterling Avenue, Victoria Avenue, and Palm Avenue.
- » **Monument Identity Sign:** One for each driveway, up to a maximum of four signs.

Commercial or Hospitality Uses:

- » Shall follow the respective city's development code requirements.

On Site Directional Signage

- » Permitted within a required setback to provide directions to automobiles, trucks, pedestrians, or other vehicles.
- » One (1) on-site directional sign is permitted for each entry.
- » Sign content shall be limited to direction only; advertising is not permitted.

- » Signs shall have a clear matte polyurethane coating.

Real Estate Signs

- » Real estate signs shall have a maximum sign area of 32 square feet and a maximum height of 8 feet.
- » Real estate signs shall be removed upon the sale, lease, or rental of property.

4.4.8 PUBLIC ART

An investment in public art throughout the AGSP will create an image of high quality and attention to detail.

Public art should be distributed throughout the project area to unify the industrial businesses and to make pedestrian pathways and streetscapes visually interesting and appealing.

New commercial or industrial development having total project costs of \$300,000 or more as determined by the City's valuation of building permits issued for the development should be subject to the artwork in public places requirement. This requirement shall also apply to expansion of existing buildings, remodeling of existing buildings, or tenant improvements to existing buildings, when any such work has a building permit valuation of \$300,000 or more. The value of land is excluded from this requirement. The artwork in public places requirement should

not apply to reconstruction of structures that have been damaged by fire, flood, wind, earthquake or other disaster.

- » The art allocation should be utilized for one art piece for each project. The developer may not divide the amount and purchase several works for the same project, except as individually agreed upon in development contracts with the City for large and/or phased projects.
- » The artwork should be easily visible by the general public and located in an area specifically designated on the approved building plans. Appropriate locations may include entryways, greenbelts, and building exteriors.
- » Installation of the artwork shall be planned and implemented to enhance the piece and allow for unobstructed public viewing from as many angles as possible.
- » The artwork should be constructed of permanent materials requiring a low level of maintenance. Durability and weather resistance should be evaluated during artwork selection and the continued maintenance of the artwork shall be the responsibility of the owner. In accordance with California State Law 987, it is suggested that artists should be given the first right of refusal on repair of the artwork whenever repairs are necessary.



CHAPTER 5.0

**DESIGN
STANDARDS &
GUIDELINES**

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CHAPTER 5.0 DESIGN STANDARDS & GUIDELINES

5.1 Purpose

Design will play a prominent role in implementing the vision for the Plan Area. Site design, building orientation and details, architectural character, color and material selection, lighting, landscaping, and signage all contribute to the character and image of the area. This chapter presents context-sensitive solutions—guidelines that take into account both function and community context—to create an identity for the Plan Area.

The design standards and guidelines provide direction to create a cohesive physical environment, promote quality design, and reinforce the vision for the Plan Area as a high quality technology and employment corridor. The design standards and guidelines are intended to provide predictability in shaping the physical future yet are flexible to encourage creative design.





Special monument sign features should be considered at primary gateway entrances or medians into the Plan Area. The signage serves to demarcate the area as a special jobs-generating district in the Plan Area.



Unique signage and intentional building orientation create a gateway at this corner project entry.

5.1.1 APPLICABILITY AND INTERPRETATION

These design standards and guidelines are to be used to evaluate development proposals and the intent of these guidelines must be met in order for a project to be approved, as outlined in Chapter 8, Administration, Implementation and Financing. The provisions of this chapter shall apply to all properties in the Plan Area.

Standards vs. Guidelines

This chapter contains both standards and guidelines. **Standards**, as indicated by the words “*shall or must*,” identify requirements. **Guidelines** as indicated by the word “*should*,” describes additional provisions that the Specific Plan requires architects and developers to satisfy. Guidelines must be addressed for all development projects—alternatives will be permitted only if a physical condition constrains implementation of the requirement and if the applicant demonstrates the intent of the design guideline is met. Conditions that are restricted are indicated by the word “*prohibited*.”

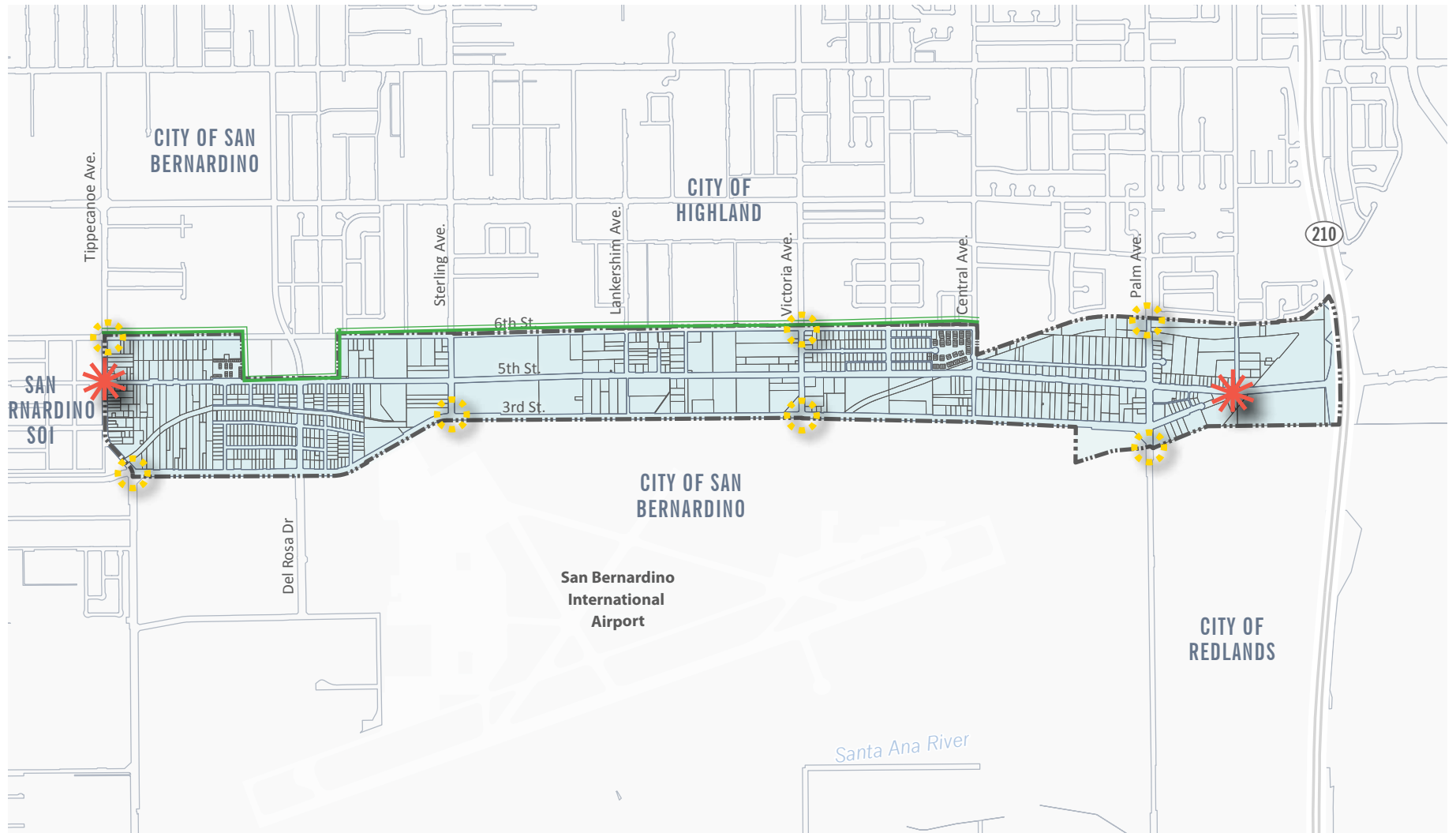
Please note that these standards and guidelines supplement but do not override the Americans with Disabilities Act, Title 24 of the California Code of Regulations, and additional requirements set forth in local and State of California building codes.



5.2 Gateways

Major intersections in the Plan Area provide an opportunity to add distinct gateway features. Treatments to these intersections include landscaping and signage to announce arrival into the area. Elements from gateway identification could also be used to identify a major development or provide direction to key destination points. Figure 5.1, *Gateways and Special Treatment Edges*, identifies the locations in the Plan Area where signage and landscaping should be implemented. The following shall also be considered.

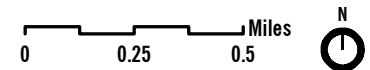
- » Gateways should utilize a distinct yet consistent theme that is present throughout the corridor, reinforced by landscaping, lighting, and signage.
- » Primary and Secondary Gateway Signs shall integrate a unifying theme of the AGSP industrial and business park brand into their design, which could include aviation-related accents. Primary gateway signage can be located in medians or on private property. Secondary Gateways are intended to be at a lesser size and scale than Primary Gateways, but should carry forth the same design theme used elsewhere.

FIGURE 5.1 GATEWAYS AND SPECIAL TREATMENT EDGES



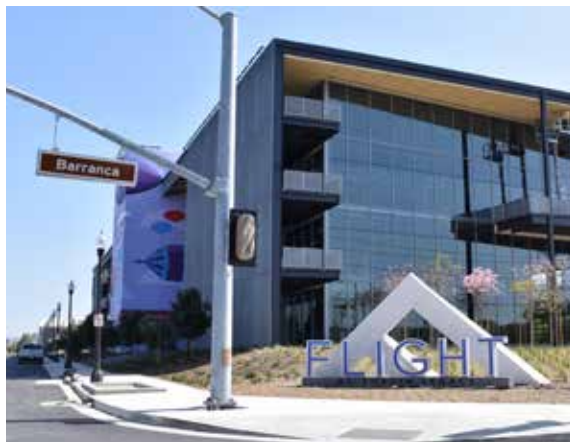
-  Plan Area Boundary
-  Special Treatment Edge
-  Primary Gateways
-  Secondary Gateways

Source: PlaceWorks





Murals or other creative artwork may be incorporated into a project's design. Accent walls or decorative features such as this are encouraged on buildings facing 6th Street as a transition to the residential neighborhoods.



This photograph shows the type of aviation-themed signage that could be located at the intersection of Del Rosa Avenue and Third Street to create a sense of arrival as one enters the airport.

- » Due to the surrounding uses—airport and residential neighborhoods—designs for secondary gateways shall be low scale with lighting and signage consistent with other standards and guidelines of this chapter.
- » Special paving, landscaping or sidewalk treatment should be used to create a visual linkage to other design elements of the gateway area, creating unifying elements that identify the Plan Area as a special district.

5.3 Special Treatment Edges

As discussed in Chapter 6, *Mobility*, the key streets of the Plan Area—Sixth Street, Fifth Street, and Third Street—require special treatment that varies among these three primary streets based on the role they play in the Plan Area. Areas requiring this special treatment are shown in Figure 5.1, *Gateways and Special Treatment Edges*. Additional requirements related to roadway-adjacent landscaping is found in Section 5.9, *Landscape Design*.

5.3.1 FIFTH STREET

Fifth Street is the primary entryway into the Plan Area and will carry the largest amount of vehicular and truck traffic of the three east-west streets that traverse the Plan Area. It is here that the primary monument

signage for the corridor will be placed and the landscaping plantings will be the most visually prominent here. Fifth Street will serve as the industrial “main street” for the Plan Area.

- » Primary gateways, identified in Figure 5.1, *Gateways and Special Treatment Edges*, at the western and eastern ends of 5th Street should receive special treatment and be larger in scale than secondary gateways.

5.3.2 THIRD STREET

Third Street will primarily accommodate truck and vehicular traffic, but it's role and level of landscape and streetscape investment is secondary to Fifth Street. Special focus should be paid to entries into the airport (signage and landscaping) but the landscape treatments along this corridor shall be of a smaller scale and intensity than those envisioned for Fifth Street.

5.3.3 SIXTH STREET

Sixth Street plays a different role than the other two east-west roadways in the Plan Area. It is secondary to the others for traffic circulation and is primarily a transition from the industrial to residential uses to the north. Pedestrians and bikes are focused here, and

the landscaping and streetscape treatments should reflect this scale. Additional guidance related to the roadway section and design of property entries and parkway features can be found in Chapter 6, *Mobility*.

Treatments may include but are not limited to:

- » Properties adjacent to the residential neighborhoods along 6th Street shall orient development so that the majority of building operations (i.e. loading, access, storage, etc.) are oriented away from and do not impact nearby residents.
- » On or near a building, vines, espaliers, and potted plants should be used to provide walls, columns, texture, and color as a buffer to nearby residential uses.
- » Projects should also consider using color or murals to provide an art element as a transition to the neighborhood.
- » In the setback area and along pedestrian paths the selected plants and design and placement of landscaping should provide for visibility of pedestrian areas and should avoid the creation of hiding places.



Uses south of the residential uses located just outside of the project area should ensure that future buildings are designed and oriented in such a way to minimize any noise, light or visual impacts on the adjacent neighborhoods.



Walls of high quality material and landscaping should be used to screen storage, loading, service, and utility areas.



Orient loading and service areas to the side or rear of the building, away from a key street.

- » Service areas shall be screened by architectural walls, fencing, and/or plantings, as required in Section 5.2.4, *Walls, Fences, and Screening*.
- » Loading docks fronting 6th Street shall be prohibited

5.4 Block Structure and Site Access

The configuration of blocks along the corridor and access to each site is largely dictated by the grid street network of the Plan Area. This Specific Plan proposes a redesign of key street connectors and lot consolidation to create an opportunity for larger scale development. New projects should be designed with a block pattern that provides access from 3rd and/or 5th Streets. Since all public streets in California are required to comply with the Complete Streets Act (see Chapter 6), site access should also consider pedestrians and cyclists. The following standards and guidelines shall be considered:

- » Vehicular and truck access, including loading areas, shall be designed to minimize conflicts between pedestrians, cyclist, autos, and service/delivery vehicles.

- » New streets and walkways should connect to other similar paths and provide access to open spaces (site specific outdoor areas for staff seating, etc.).
- » The number of site access points for vehicles should be minimized.
- » Gated entries should be configured such that vehicles and trucks can wait onsite and out of the right-of-way for entry gates to be opened.

5.5 Site Design

Site design is an important process that will determine how buildings are placed on a site, where access will occur, and how structures and spaces are located in relation to each other and to adjacent uses.

5.5.1 BUILDING ORIENTATION

Visually-appealing buildings with context-sensitive orientation contributes to the area's character and compatibility with surrounding areas such as the airport and residential neighborhoods. The intent of this section is to guide location, arrangement, scale, proportion, and character of development. The following standards and guidelines shall be considered:

- » Buildings should strive to reinforce the public street edges, rather than creating building islands surrounded by parking.
- » Building placement and orientation should be designed to create visual interest along public rights-of-way. Multiple buildings in a single project should demonstrate a functional relationship to one another.
- » Buildings should be plotted adjacent to roads to screen parking areas and to engage the streetscape.
- » Orient buildings, main business entrances, administrative offices, and windows toward key streets.
- » Service entrances shall be sited so that they do not interfere with customer access.
- » Orient windows and secondary entries towards open spaces or pedestrian walkways, avoiding dominant blank walls.
- » Arrange buildings to create opportunities for courtyards, plazas, and landscaped open spaces.
- » When feasible, spaces between buildings should be designed as outdoor seating and possibly used as an extension of the employee break room.
- » Where feasible, establish connections among buildings and open spaces through structural and landscape elements.
- » Given the climate of San Bernardino County, buildings should be arranged to maximize wind and sun protection.
- » Drive-through businesses shall be situated so as not to block any other drive aisle or parking space.

5.5.2 PARKING, LOADING, AND STORAGE AREAS

Parking, loading and storage areas are necessary components of any commercial or industrial development. Parking requirements for the Plan Area are discussed in Chapter 4, Land Use and Standards. The following standards and guidelines are intended to complement the other site design guidelines of this section:

- » Parking areas should be provided behind or to the side of commercial buildings where possible. For industrial uses other configurations may be considered.



Building entries should be oriented toward the street.



Creative office space is attractive to technology-oriented businesses and often is designed with flexibility at any scale.

- » Projects should minimize parking adjacent to service and loading areas.
- » Parking areas should clearly separate vehicular and pedestrian circulation systems. Pedestrian connections through parking areas should provide landscaping and amenities to create visual interest, pedestrian access, and rest breaks over long distances of pavement.
- » Buffers shall be provided between parking lots and public rights-of-way using berms, landscaping, and/or low walls. Walls shall be supplemented with plantings to soften their appearance.
- » Primary parking lot entry drives and primary internal access intersections shall be treated with design elements, such as special paving, graphic signage, specialty lighting, specimen trees, or flowering plants that will provide individual identity to the project.
- » Parking areas shall be designed to minimize the conflict between pedestrian and vehicular traffic.
- » Shade structures and tree cover shall be provided in parking lots to reduce the amount of heat absorbed by paved parking areas where feasible.
- » Planter islands and pedestrian circulation extending the full length of drive aisles shall be provided within parking lots containing over 150 spaces.
- » Planter islands shall be provided at the end of parking aisles.
- » Internal access drives shall be setback a minimum of 10 feet from the building frontage. A setback of 15 feet shall be provided in areas likely to have high pedestrian volumes.
- » Locate loading bays away from the key streets and toward the minor streets/drives.
- » Locate truck loading and outdoor storage areas away from connecting driveways and required parking areas.

- » Whenever possible, loading docks, garages, and storage areas should be located either behind or to the side of the building served. These services should have their access from secondary rather than primary streets and should not interact with any pedestrian areas.
- » Appropriate on-site service vehicle parking/turnouts shall be provided in an efficient, non-obtrusive location.
- » Locate storage buildings away from the key streets and in locations where they are fully screened, maintain adequate access, and complement and integrate with the design of the building.

5.5.3 WALLS, FENCES, AND SCREENING

The site design should also factor in functional areas necessary for loading docks, refuse and recycling collection and storage areas, utility equipment, and mechanical equipment. Regardless of location (i.e., wall, roof, or ground mounted) these areas shall be screened from view of key streets in the Plan Area as well as adjacent residential neighborhoods. Screening may consist of aesthetically compatible landscaping (i.e., hedge, trees, shrubs, etc.) or constructed of building materials that blend with the

architectural and landscape treatment of the site and must adhere to the following standards and guidelines:

- » Screening walls and utility enclosures should be designed as integral architectural features.
- » Solid walls and fences shall not dominate the street scene. They should only be used when necessary for noise attenuation, privacy, and shielding of incompatible adjacent uses.
- » Wall and fence design shall complement the project's architecture and be constructed of attractive and durable materials, including, but not limited to, wrought iron, textured concrete block, brick, stone, or formed concrete. Landscaping and berming shall be used to soften the appearance of wall surfaces. Chain link is not an acceptable permanent option and electrified fences are prohibited.
- » Existing residential areas shall be buffered with a minimum six-foot high privacy wall or combination landscape berm and wall totaling six feet in height. Landscaping shall be planted by the developer along these walls.



Creative elements such as this screen with the building address provides privacy for the building and screen the service entry.



The use of color and window placement create a pattern and rhythm for this otherwise stark building wall.

- » Long, monotonous walls shall be avoided. If such walls are proposed, they shall be modulated with breaks, recesses, and offsets, especially at entries and important intersections. Long walls shall be made more attractive and visually interesting through the incorporation of surface articulation and pilasters with 100 foot minimum intervals.
- » Walls and fences shall be designed in such a manner as to create an attractive appearance along the street frontage. Techniques to accomplish this treatment may include, but are not limited to raised planters, openings, material change, staggered sections, and pilasters or posts. Walls and/or wall surfaces not visible to the public do not need the same high level of detail.
- » Walls and fences shall be sited to minimize visual impact while maximizing the function of the wall or fence.
- » Pilasters shall be incorporated into wall design especially at entries and important community intersections.
- » The use of trees, shrubs, vines, and cactus shall be considered to minimize the visual impact of walls.
- » Projects shall provide openings in fences and walls to connect walkways directly to the street and avoid circuitous routes for pedestrians. Pilasters, trellises, special landscaping, or other special features shall announce these "gateways."
- » No wall shall be designed to contain sections that measure more than 50 feet without an offset in plane, or the incorporation of design elements such as landscaping, pilasters, or elevation changes.
- » Walls topped with security features such as barbed wire or broken glass are prohibited.
- » Refuse and recycling collection or storage areas should be located behind or to the side of the building served, away from common open space areas.

- » Roof-mounted equipment (i.e., mechanical, heating and cooling equipment, communication dishes or antenna, exhaust fans, ducts, or similar) shall be screened from key streets and adjacent residential neighborhoods. Screening may be achieved by the building parapet or some other screen component that is consistent with the structure's architecture and is complementary to its color and materials.
- » Design features that incorporate high-quality materials such as articulation of the building, a solid wall, landscaping, or trellis work should be used to screen wall- or ground-mounted equipment.
- » The primary building exposure (the side of the building that faces a key street and/or contains the main entry) should receive greater attention to design detail. Details could include, but are not limited to, variation in form, mass, scale, articulation, color, height material, and/or architectural detail.
- » Secondary building exposures (those that face interior roadways and do not contain the main entrance) shall be architecturally compatible with but need not be as detailed as primary exposures.
- » Relate multiple buildings on a site in terms of bulk and mass but do not make them identical.
- » To reduce the visual impact of long building facades (on any building spanning more than 65 feet), use variation in color, materials, articulation, decorative fixtures, landscaping, screens, or other methods such as awnings.

5.6 Building Design

A building's design is dictated by architectural style. Several design considerations should be used to reinforce the chosen architectural style while universally creating visual interest and a sense of arrival.

5.6.1 BUILDING FORM, MASS, AND SCALE

- » Building forms should be simple and well proportioned, resulting in a balanced composition of elements.
- » Towers and other vertical/prominent building features should be used to accentuate key elements such as building entries, pedestrian or open space areas.



A variety of materials and color can create visual interest along a building.



Windows can be used in a variety of shapes and arranged in a pattern to break up a long building plane.



A combination of windows and architectural elements can be used to create a corner treatment and call attention to the building entry.

5.6.2 ARCHITECTURAL FEATURES, MATERIALS AND COLORS

Architectural features, building materials and colors are key design elements in establishing an identity. Architectural design should be clean, simple, and streamlined for a modern appearance. To provide enduring quality and enhance the architecture and massing of a building or group of buildings on a site, the following standards and guidelines shall be considered:

- » Variation on the architectural theme is encouraged through simple changes in color or architectural features.
- » While variations of materials and colors are appropriate, the number of different materials and colors should be limited on a building.
- » All facilities shall be constructed of permanent finished materials such as concrete, masonry, and glass. Acceptable exterior finishes: stone or brick; stucco; or masonry with textured or sandblasted finishes.
- » Glass glazing systems, glass block, ceramic or natural stone tile, decorative metal, and metal panel systems are appropriate when used as accents.
- » Buildings of prefabricated metal or exposed precision concrete masonry are prohibited. Metal siding may be used as an architectural detail or only when it serves a practical purpose (e.g., refrigeration units) and is limited to a maximum of 15 percent of an elevation.
- » A dominant building material and color shall be clearly established for each development complex. Accents and variations may then occur within the background established by that dominant base. The dominant colors for buildings should be neutral with more intense colors used as accents.
- » Materials and colors shall match and enhance the architectural style of the buildings.
- » Building materials shall be of a high quality that will weather well over time.
- » The use of light-colored roofing materials to reflect heat and reduce cooling requirements of buildings, particularly Energy Star–labeled roofing materials, is highly encouraged.

5.6.3 WINDOWS AND DOORS

The appearance and pattern of doors and windows can help to create symmetry and rhythm on a building. The following standards and guidelines shall be considered in new building design or major remodels/renovations:

- » Windows, doors, and other openings should unify the building facade by creating a clear pattern.
- » Windows should be treated consistently within a single building for both placement and detailing.
- » Window treatments, where feasible, are encouraged. Exterior window treatments should include, but are not limited to:
 - » Recesses and surrounds
 - » Trim elements
 - » Awnings (cloth and a continuous row should be avoided due to high winds)
 - » Shutters (proportional to window and consistent with architectural style).
 - » Mullion patterns as appropriate to the architectural style.
- » The doors and windows that comprise a building's entrance should be the dominant element of the primary frontage.
- » Metal security doors and exterior security grilles should be avoided.
- » Emergency exit- or egress-only doors should be treated to blend in with the adjacent walls or surfaces to discourage their perception as entries.



Low profile landscaping at the Famous Footwear distribution center at Tejon Ranch Commerce Center is well maintained and provides good visibility to the building yet creates a buffer to the parking lot.



Street trees and drought tolerant landscaping provide a buffer to the street and an attractive building frontage.

5.7 Landscape Design

Landscape standards and general regulations pertaining to various aspects of landscaping related to screening, set backs, etc. are regulated by the City of San Bernardino Development Code, Chapter 19.28 and for the City of Highland are contained throughout the chapters of Title 16, Land Use and Development. The following sections, including Table 5.1, *Plant and Tree List*, establishes a landscape palette for the Plan Area that will create a sense of place and visual consistency through the use of color, shade and seasonal change.

Development projects shall utilize the plants and trees identified in Table 5.1, *Plant and Tree List*, as the primary species for plantings along public roadways—other species may be substituted with approval from the responsible jurisdiction.

Given the nature of industrial development and the other uses permitted in the Plan Area, the intent of the landscape design standards and guidelines are not to require vast amounts of landscaping or increase water usage in the area but rather to provide green space and softscaping in appropriate places to implement the vision of the Specific Plan, especially along the key corridor streets (3rd, 5th, and 6th Streets).

Water features in all landscaped areas (roadway and site specific) are discouraged because of the proximity of the Plan Area to the airport and the tendency of water to attract birds, which can become an added hazard for airport operations. If water features are proposed, they shall be reviewed and approved by the airport to ensure they are consistent with federal aviation law requirements.

5.7.1 GENERAL LANDSCAPE STANDARDS AND GUIDELINES

In general, landscaping should:

- » Frame, soften and embellish the quality of the environment.
- » Buffer residential areas along 6th Street and adjacent to Tippecanoe from noise or undesirable views.
- » Visually reduce or break up building mass.
- » Break up and help shield large expanses of parking and hardscaped areas.
- » Provide shade and comfort.
- » Direct and guide visitors to the building entrance by creating a sense of arrival when used in planters, pots, or planting areas.
- » Screen unsightly areas and/or enhance views.

TABLE 5.1 PLANT AND TREE LIST

Tree List (scientific name common name)		
Acacia baileyana Bailey Acacia	Cupressus sempervirens Italian Cypress (not permitted in parkways)	Pinus halepensis Aleppo Pine
Acacia stenophylla Shoestring Acacia	Eriobotrya deflexa Bronze Loquat	Pinus pinea Stone Pine
Afrocarpus gracilior African Fern Pine	Ficus rubiginosa Rusty Leaf Fig	Platanus 'Bloodgood' London Plane Tree
Agonis flexuosa Peppermint Tree	Fraxinus velutina Arizona Ash	Platanus racemosa California Sycamore
Albizia julibrissin Mimosa	Geijera parvifolia Australian Willow	Prosopis alba Argentine mesquite
Arbutus marina Strawberry Tree	Gingko biloba Maidenhair Tree	Prosopis chilensis Thornless Chilean Mesquite
Bauhinia x blakeana Hong Kong Orchid Tree	Heteromeles arbutifolia Toyon	Quercus agrifolia Coast Life Oak
Cassia leptophylla Gold Medallion	Koelreuteria paniculata Golden Rain Tree	Quercus virginiana Virginia Oak
Ceiba speciosa Pink Silk Floss	Lagerstroemia 'Natchez' Crepe Myrtle	Tabebuia impetiginosa Pink Trumpet Tree
Chionanthus retusus Fringe Tree	Lagunaria pattersonii Primrose Tree	Tipuana tipu Tipu Tree
Chitalpa tashkentensis Chitalpa	Laurus nobilis Sweet Bay	Ulmus parvifolia Chinese Elm
Cinnamomum camphora Camphor	Laurus 'Saratoga' Saratoga Laurel	
Corymbia ficifolia Red Flowering Gum	Lophostemon confertus Brisbane Box	
Cercis occidentalis Western Redbud	Magnolia grandiflora Southern Magnolia	



Consistent signage and landscaping placed throughout the Anaheim Canyon area, identifies this employment hub as a unique place in the City of Anaheim. Similar treatments can be applied in the AGSP to delineate the extent of the jobs district.

Other general landscape standards and guidelines include:

- » All landscaping shall utilize the approved trees listed in the plant palette provided in Table 5.1, *Plant and Tree List*. Other species may be substituted with approval from the responsible jurisdiction if the species listed in the table become unavailable for unforeseen reasons.
- » No one species shall dominate the landscape palette. Plant a variety of tree and shrub species while maintaining a consistent character throughout the development. This will minimize the negative impact from possible tree diseases. The planting of native and drought-tolerant species in conjunction with water-efficient and drip irrigation systems shall be implemented for every project, especially in public or common areas.
- » Drought-tolerant or native tree species shall be provided around and near buildings, walls, windows, and paved areas.
- » All tree plantings shall be a minimum 24" box container (on-site and in parkways).
- » Increased tree coverage should be provided in developed areas to reduce solar heat gain in buildings and to reduce the amount of heat absorbed by paved areas. Also, deciduous trees should be provided on the south side of buildings to allow increased solar gain in winter months and shading in summer months.
- » As practical, parkways shall be utilized for water treatment and to reduce runoff.
- » Automated, high efficiency irrigation systems shall be installed to reduce the amount of water devoted to landscaped areas, such as drip and bubbler irrigation and low-angle, low-flow sprayheads.
- » The use of large or inefficiently small turf areas in landscaping shall be minimized by incorporating water-conserving native groundcovers or perennial grasses, shrubs, and trees. Small turf areas that cannot be watered efficiently and areas will only be used for ornamental (non-functional) purposes are also discouraged.
- » Plants with similar water requirements shall be grouped together, a technique known as hydrozoning.
- » Shade trees shall be planted in plaza spaces to provide a comfortable gathering area.

- » Planters with shrubs, groundcovers, and flowering trees should be architecturally incorporated with bench seating, fountains, and other amenities in plaza spaces.
- » A vertical hierarchy of trees and shrubs in conjunction with land berms shall be used where commercial/industrial uses are adjacent to residential uses.
- » An enhanced landscape treatment shall be provided where a development project interfaces with existing residential uses (fronting 6th Street, for example). Tall trees, shrubs, and vines shall be used in conjunction with a minimum six-foot high privacy wall for screening.

In addition to adhering to the landscape design guidelines and standards contained herein, all development within Plan Area shall comply with current water use and landscaping requirements set forth by the cities of Highland and/or San Bernardino, and other regulatory agencies with jurisdiction over the Plan Area. These include, and are not limited to:

- » Highland Municipal Code, Chapter 16.40 (General Development Standards), Section 16.40.390 (Water Efficient Landscape Requirements)
- » San Bernardino Municipal Code, Chapter 19.28 (Landscaping Standards), Section 19.28.120 (Water Efficient Landscaping Standards)
- » State of California Code of Regulations Title 23, Division 2, Chapter 2.7 (Model Water Efficient Landscape Ordinance)
- » EVWD water conservation/irrigation requirements

5.7.2 PUBLIC ROADWAY-ADJACENT LANDSCAPING

Landscaping within and/or adjacent to public rights-of-way requires special consideration to reinforce the character of the Plan Area and to shield views, but not affect line of sight for drivers.

The following standards and guidelines shall be considered:

- » Figures 5.2 through 5.4 illustrate the minimum required dimensions and minimum planting spacing on the parkways for 3rd, 5th, and 6th Streets which require special treatment because they serve as the primary east/west access to the AGSP and, in the case of 6th Street, its proximity to residential uses warrants more enhanced landscape treatment to create an attractive transition edge. All setbacks identified in Chapter 4, *Land Use and Development*

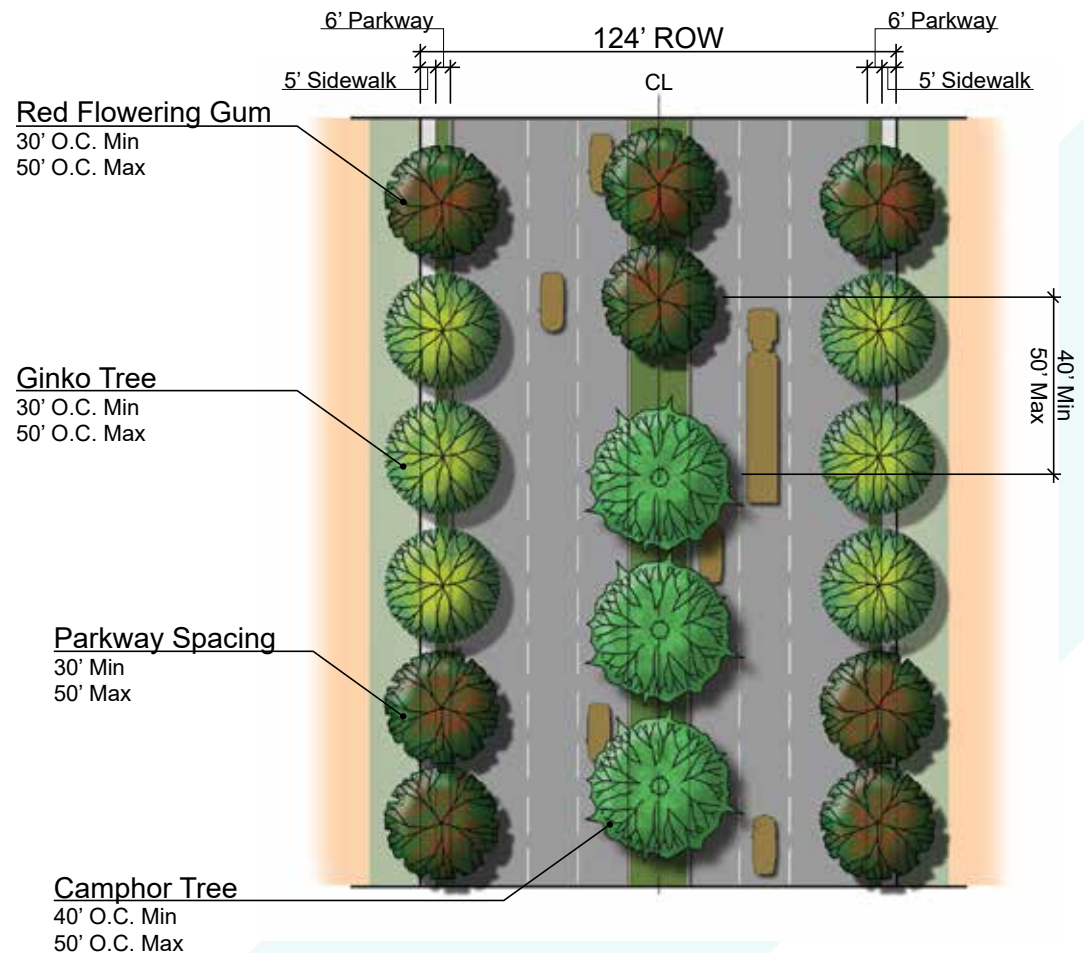


Design features of the Skechers distribution center in Moreno Valley include a plaza terrace lined with palm trees that are reflected onto the building by the desert sun.

Standards, shall be measured from the back of sidewalk identified in the illustrations. The roadway sections in Chapter 6, *Mobility*, also depict these requirements. It should be noted that that the 124' right-of-way recommended for 3rd and 5th Streets will require amendments to both city General Plan Circulation elements.

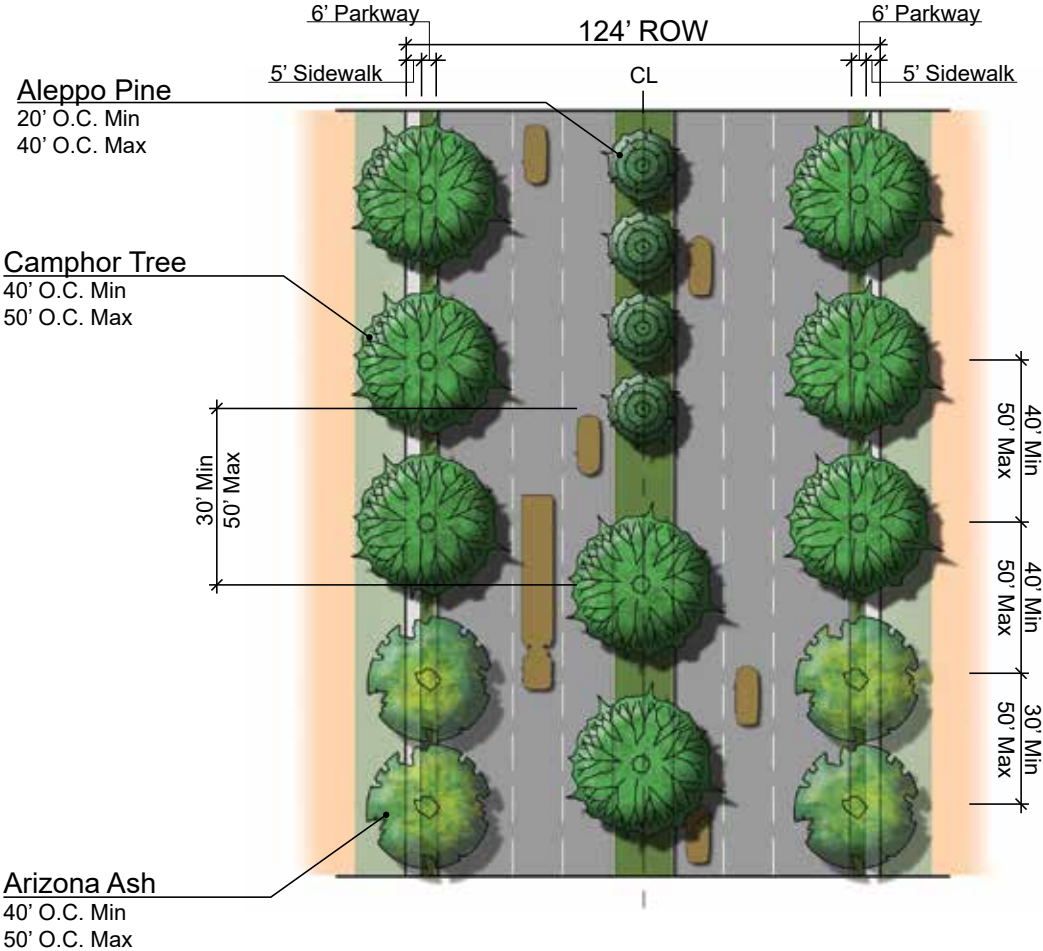
- » All parkway tree plantings shall be a minimum 24" box container.
- » The area between the face of the curb and the parking area or the building (if no parking is proposed in the front setback) shall contain the sidewalk within the street right-of-way and shall be landscaped with mounded or bermed groundcovers. Turf grass shall not be used in parkways or medians. Screening shrubs shall be planted outside the street right-of-way in a manner that will shield parking and/or loading areas from public view.
- » Trees shall be planted along roadways in the parkways in a formal pattern no greater than 50 feet apart.
- » All landscape setback areas (as defined in Table 4.3, *Setback Requirements*) adjacent to a key street (Collector and above) shall be incorporated into a landscape maintenance district and/

FIGURE 5.2 3RD STREET | PLAN VIEW



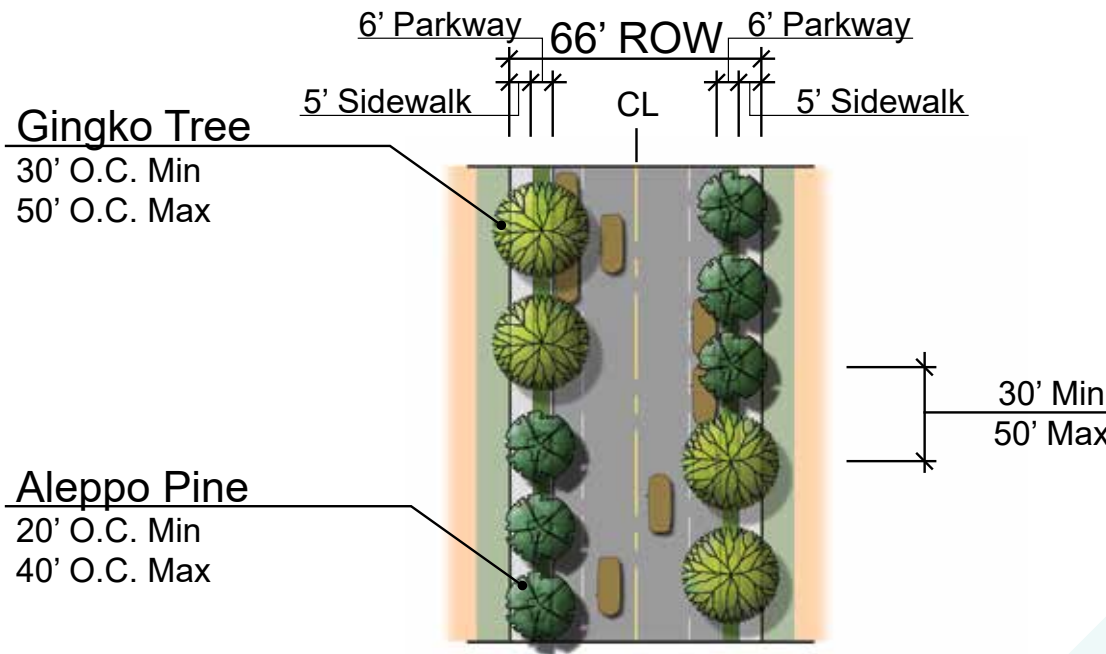
Note: Trees on Figures 5.2-5.4 are allowed to be changed for an alternative tree on the Plant Palette list (Table 5.1) of similar size upon approval by the Planning Department. No street parking is allowed on 3rd and 5th Streets.

FIGURE 5.3 5TH STREET | PLAN VIEW



Note: Trees on Figures 5.2-5.4 are allowed to be changed for an alternative tree on the Plant Palette list (Table 5.1) of similar size upon approval by the Planning Department. No street parking is allowed on 3rd and 5th Streets.

FIGURE 5.4 6TH STREET | PLAN VIEW



Note: Trees on Figures 5.2-5.4 are allowed to be changed for an alternative tree on the Plant Palette list (Table 5.1) of similar size upon approval by the Planning Department.

or property owners association for on-going maintenance. Common maintenance is not mandatory for local internal streets, but is available at the choice of individual owners through formation of a property owners association.

5.7.3 ENTRIES, KEY INTERSECTIONS, STREETSCAPES, AND SETBACKS

Special attention should be given to the landscaping of entry points, key intersections, streetscapes, and setback areas. These areas provide an opportunity for project and tenant identification and to enhance the aesthetic quality of development sites and roadways. The following standards and guidelines shall be considered:

- » Landscaping shall be located so it does not impede the clear area of driveways and intersections.
- » Setbacks along street edges should be landscaped and maintained to preserve visibility to buildings, lighting, and signage from the street.

- » Monument signs should be landscaped with low plant material selected from Table 5.1, *Plant and Tree List*. Guidelines and standards related to signage are provided in Section 5.8, *On-site Signage*.
- » Landscaping at key entries shall be consistent, formalized, and composed of signature plantings from the plant palette (Table 5.1) to create an attractive and cohesive identity.
- » Landscaping at entries and key intersections should employ a variety of height and texture to enhance the visual impact of these areas.
- » Flowering trees, shrubs, and seasonal flowers should be provided at entries and key intersections to add color and interest.
- » Landscaping along major roadways shall be consistent, formalized, and composed of signature plantings from the plant palette (Table 5.1) to create an attractive and cohesive identity.
- » Informal groupings of ornamental trees, shrubs, and vines shall be planted between sidewalks and walls to soften their appearance.

5.7.4 LANDSCAPING IN PARKING AREAS

- » One tree for every four parking spaces shall be planted in parking areas. They may be clustered or planted in a standardized fashion, so long as they provide shade for vehicles (with shade for 50 percent of parking spaces at maturity) and for pedestrians along walkways and parking lot entrance points.
- » Landscape buffers shall be provided between parking lots and public rights-of-way. This can be accomplished using informal groupings of trees, shrubs, and groundcovers.
- » Large deciduous trees shall be planted throughout parking lot areas to minimize solar heat gain and provide shade for vehicles.
- » Pedestrian walkways within parking lots shall be landscaped with large shade trees to provide relief to pedestrians and to define the location of the walkway.

5.8 On-site Signage

Signs are an important communication tool that are used to identify a place of business, provide directions/wayfinding, and can contribute to the aesthetics of



The Stater Bros distribution center in San Bernardino utilizes wall signs consistent with the company's branding and at a scale that is readable from across the street.



The Lakeshore Plaza sign at Dos Lagos in Corona, creates a gateway into the office park area of this commercial development.



Theming for the signs are carried throughout the business park, from monument to directional sign.

an area. Signs, landscaping, and lighting should be designed jointly to reinforce a theme or architectural style. The design and placement of signage are equally important. Signs are regulated in the City of Highland by Chapter 16.56 of the Highland Municipal Code and in the City of San Bernardino by Chapter 19.22 of the San Bernardino Municipal Code.

- » Signs shall incorporate common design elements such as materials, letter style, colors, illumination, sign type or sign shape.
- » Signage shall be restricted to listing the tenant(s) only and may either be wall mounted or freestanding.
- » All temporary signs and banners shall be made of durable material designed to maintain an attractive appearance for as long as the sign is displayed.
- » Signs shall be located so not to impede the clear area of driveways and intersections, as defined by each city's respective municipal code.
- » Identification signs that require illumination should be back-lit or internally illuminated.
- » Animated, flashing, swinging, rotating, or audible signs are prohibited (electronic message boards displaying only time and/or temperature for periods of not less than 30 seconds are permitted).
- » Signs shall be constructed of high quality, low-maintenance materials.
- » Streetscape elements, such as landscaping, lighting, street furniture, and signage shall create an attractive, consistent, and cohesive community image while complementing the surrounding architectural styles.
- » Special patterned paving shall be provided at important intersections and pedestrian crossings.
- » Parkway-separated sidewalks shall be provided on all public streets pursuant to the requirements called for in Chapter 6, *Mobility*.
- » Sidewalks within commercial areas should be expanded to include zones for pedestrian traffic, street trees, and landscape buffers.
- » Commercial and industrial street corners shall be defined by buildings that provide continuity for the streetscape and reduce the impact of parking.

5.9 Lighting

While outdoor lighting is necessary for safety, it is also a means to add character and enhance architectural style. Lighting can also help to unify a site with the rest of the Plan Area. The following standards and guidelines shall be considered:

- » All projects proposed between Tippecanoe and Palm Avenues must submit a lighting plan to the Airport to review for potential impacts to airport operations.
- » Lighting shall be designed to provide a hierarchy of intensity, defining vehicular and pedestrian circulation patterns, distinguishing community entries and activity areas, and providing safe pedestrian movement.
- » Attractive and consistent lighting elements shall be provided.
- » Lighting should be designed to satisfy both functional and decorative needs.
- » Light fixtures and standards shall be compatible with the architectural character of the development.
- » Landscape lighting shall be designed to complement and enhance architecture and landscape design.
- » Light fixtures and standards shall be made of durable materials that have long life spans and are able to withstand constant use and exposure to the natural elements and conditions of San Bernardino County, including extreme temperatures and strong winds.
- » Pedestrian-scale lighting (fixtures of approximately twelve feet in height) should be provided in pedestrian areas, pathways, and common areas between buildings for safety and to illuminate and, if necessary, augment the light provided by nearby streetlights and parking lot lights.
- » Lighting shall be designed to enhance safety and security.
- » Parking areas should utilize lighting standards and fixtures that are consistent with and a continuation of the building or site's architectural style.
- » Attractive and consistent lighting elements shall be provided along streets. The height, brightness, and spacing of the lighting elements should be appropriate to the scale and speed of the roadway.
- » Entry areas (both pedestrian and vehicular) should be creatively lit to develop a sense of place and arrival.



Lighting shall be consistent with the architectural character.



Landscape lighting is designed to enhance architecture and landscape design.



A secure bicycle parking and storage space will encourage bicycling and other alternative modes of transport and help creating healthy, sustainable communities.



Swales and infiltration basins will help collecting stormwater runoff.

- » Iconic landscaping and buildings within the project should be spotlighted to provide visual accent and directional reference.
- » Down-facing fixtures and shielding should be used to minimize glare, spillover, and light pollution onto adjacent properties or to create conflict with airport operations/visibility.
- » Security lighting shall not project above the roof line of the building on which it is mounted.
- » Blinking and flashing lights and contrasting light colors are prohibited.
- » Energy-efficient LED or equivalent lighting shall be used for all interior and exterior fixtures and standards if available and suited for the purpose.
- » The use of a timer control switch or sensor should be considered in order to dim and brighten lighting levels when necessary and assure that lights are on only when needed.
- » Provide low-contrast lighting and use low-voltage fixtures and energy-efficient bulbs, such as compact fluorescent (CFL) and light emitting diode (LED) bulbs.
- » The use of IDA-approved (International Dark-Sky Association) fixtures should be considered for outdoor lighting.

5.10 Sustainable Design and Green Measures

The Specific Plan provides a sustainable approach to site planning, building development and landscape design. Following are sustainable guidelines and standards applicable to development within Specific Plan Area—they reinforce development that is attractive, efficient, and environmentally sustainable. The guidelines and standards also help ensure that development created through the Plan Area is designed to take advantage of the opportunities and protect against the extreme weather conditions (e.g., extreme temperatures and strong winds loads) of the environment of San Bernardino County.

In addition to sustainable guidelines and standards provided herein, current technologies and best management practices should be followed to create projects that are responsive to environmental conditions and assure that development respects the natural systems and resources present and minimizes short- and long-term negative impacts.

5.10.1 SITE DESIGN AND INFRASTRUCTURE

- » Shading devices and techniques, such as roof overhangs, trellises, arcades, and trees, shall be incorporated into buildings, outdoor spaces, and parking areas to minimize unnecessary solar heat gain and provide shade for people, buildings, and vehicles.
- » Whenever appropriate, buildings should be oriented so that the long axis is oriented east–west to maximize north- and south-facing windows, which receive indirect, diffused light with low heat gain for the building, reducing cooling costs during summer months. Outdoor spaces such as plazas should be similarly oriented.
- » Development should be sustainable and responsive to the harsh climatic conditions of San Bernardino County (e.g., extreme temperatures and strong wind loads).
- » Developments shall minimize light pollution by avoiding outdoor lighting where unnecessary, emphasizing shielded fixtures and avoiding overhead lighting of areas such as walkways.

- » The use of swales and infiltration basins, particularly with native or drought-tolerant landscaping, shall be provided to collect and retain stormwater runoff, as well as for water quality purposes.
- » The provision of bicycle parking and storage areas (either indoor or outdoor) should be included in development projects to help provide and encourage an alternative mode of transportation for or visitors, patrons, employees, and tenants. Outdoor parking and storage areas should be as close to building entrances as possible.

5.10.2 BUILDING DESIGN

- » All proposed commercial and industrial uses shall be designed, constructed, and operated in conformance with the most current California Green Building Standards Code (CALGreen; Title 24, California Code of Regulations, Part 11).
- » Small-scale sustainable energy facilities (e.g., solar panels on building/carport roofs and shade structures, building- or ground-mounted windmills or wind turbines) should be considered for development proposals. Solar panels should be provided on the roofs of all industrial buildings (except



Solar roof will reduce the energy cost and lower carbon emissions.



Use natural light and direct sunlight in a building to reduce electric lighting and saving energy.

greenhouses), and on the roofs of covered parking structures, such as carports.

- » Architectural features that increase daylighting, such as light shelves that bounce light further into interior spaces, should be installed to reduce the need for additional electrical light.
- » Buildings should be sited and designed to maximize the use of sunlight and shade for energy savings.
- » The use of recycled-content aggregate (reused and crushed concrete and asphalt) is highly encouraged in areas such as, but not limited to, drainage backfill and under driveways, sidewalks, and building slabs.

5.10.3 ENERGY CONSERVATION

- » Small-scale sustainable energy facilities (e.g., solar panels on building/carport roofs and shade structures) should be considered for all new development projects.

- » Architectural features that increase daylighting, such as light shelves that bounce light further into interior spaces, should be installed to reduce the need for additional electrical light
- » Buildings should be sited and designed to maximize the use of sunlight and shade for energy savings.
- » South- and west-facing windows should be shaded with features such as overhangs, deciduous trees, or awnings to reduce summer exposure and the need for interior cooling of buildings.
- » Energy efficient building materials (e.g., lighting, insulation, windows) should be used whenever possible and appropriate.
- » Materials that reduce the transfer of heat into and/or out of the building should be used. For example, the use of light-colored roofing materials to reflect heat and reduce cooling in buildings is encouraged.

5.10.4 SOLID WASTE AND RECYCLING

- » Recycled and other environmentally-friendly building materials should be used in development projects wherever possible.

- » The use of recycled-content aggregate (reused and crushed concrete and asphalt) is highly encouraged in areas such as, but not limited to, drainage backfill and under driveways, sidewalks, and building slabs.
- » Enclosures with solid roof tops that accommodate bins for solid waste and recyclable materials should be provided for commercial/industrial developments.

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CHAPTER 6.0

MOBILITY

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CHAPTER 6.0 MOBILITY

6.1 Overview

The Plan Area is central to and well served by State Route 210, Interstate 10, and Interstate 215. Tippecanoe Avenue, Palm Avenue and 5th Street are the primary arterial roadways serving as regional access corridors to the Plan Area. To improve mobility for all users, the mobility plan presents a series of improvements to effectively manage truck traffic and accommodate a range of transportation options in the area.

The components of the mobility plan are designed in response to the Specific Plan's vision and objectives (Chapter 2) and are also regulated by the Circulation Elements of the City of Highland and City of San Bernardino General Plans. The mobility plan responds to recent laws pertaining to "complete streets", including Assembly Bill 32, Assembly Bill 1358, Senate Bill 375, and Senate Bill 743 (which are described in Chapter 1 and Section 6.1.1 of this Chapter). Creating a safe, efficient, and balanced, multimodal mobility network is a priority of these plans and laws, as well as of the Specific Plan. The mobility plan puts forth the plans for creating complete streets and improving the way people, goods and resources move into, through and beyond the Plan Area.



Looking west across the AGSP. 3rd and 5th Streets (pictured) provide the primary vehicular access to properties in the Plan Area.

6.1.1 AGSP CIRCULATION SYSTEM

Following is a description of the mobility and circulation elements as they relate to the Plan Area. The primary modes of travel that serve the Plan Area and make up the mobility plan (some to a greater extent than others) include: vehicular access and circulation; truck access and circulation; pedestrian access and circulation; bicycle access and circulation; and public transit.

To implement the Specific Plan's vision and objectives, as well as the aforementioned state laws, the mobility plan seeks to increase pedestrian and bicycle facilities and safety throughout the Plan Area while also integrating motor vehicles and public transit to create complete streets. The ability to efficiently and safely get around the Plan Area, as well as be able to access the local and regional roadway system and alternate modes of travel (pedestrian, bicycle, and public transit) in and around the Plan Area, is essential to the uses and users of the Plan Area and to the success of the mobility plan.

Opportunities to create new active transportation options for walking, and cycling throughout the Plan Area help reduce greenhouse gas emissions and can also help alleviate roadway congestion, improve air quality, and improve the health and wellness of residents and workers of the Plan Area.

The planned bicycle and pedestrian infrastructure improvements throughout the Plan Area are designed to upgrade the existing physical environment and improve the way people interact with and get around in the Plan Area. For example, closing gaps throughout the Plan Area provides mobility benefits for pedestrians and bicyclists, leading to increased trips by these modes.

The mobility plan focuses on establishing safe and efficient motorized and nonmotorized connections into and through the Plan Area via a complete streets approach. The mobility plan also fits into, complements, and helps complete the mobility and circulation system in and around the Plan Area—it outlines the strategy for providing a comprehensive, multimodal transportation network for the Plan Area that builds on the existing roadway network and backbone system. Synchronizing traffic signals, completing and reconfiguring roadway segments, improving intersection crossings and roadway pavement conditions, and enhancing and completing active transportation facilities (e.g., sidewalks, bicycle lanes) are just a few of the strategies that will help to create an enhanced multimodal mobility experience for all users in the Plan Area.

MINIMIZING MULTIMODAL CONFLICT

To establish a safe and efficient multimodal system, the AGSP mobility plan seeks to minimize conflicts that can occur

between motorized and nonmotorized modes of transportation. For example, limiting the number of access driveways for development sites and prohibiting truck access along 6th Street will help reduce conflicts that can occur between automobiles/trucks and pedestrians and bicyclists. Local deliveries to residential and other uses along 6th Street are permitted using mid-size trucks.

Additionally, providing clearly-marked crosswalks and on-street bicycle lanes inform motorists of potential pedestrians and bicyclists in the area and therefore, causes motorists to pay greater attention as they drive along the street. As demonstrated throughout this chapter, the mobility plan provides numerous plans and provisions for not only creating complete streets, but also to help minimize multimodal conflicts that can occur throughout the Plan Area.

CREATING A COMPLETE STREETS NETWORK

Complete streets have been defined by the National Complete Streets Coalition as, "... streets for everyone. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and

from transit stops." Caltrans has refined this definition and sees complete streets as "transportation facilities that are planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit riders, and motorists appropriate to the function and context of the facility."

For the AGSP, a complete streets approach means taking advantage of all benefits resulting from this multimodal approach. It also means providing mobility for all modes of transportation that services users of all ages and abilities. Given that the transportation network in the Plan Area is largely focused on automobiles and trucks, the Specific Plan provides a plan for infrastructure focused on balancing motorized and nonmotorized transportation options. Providing enhanced mobility for modes such as pedestrians, bicyclists and transit riders will improve the accessibility to, within, and beyond the Plan Area, which is a key component of the Specific Plan's vision and objectives.

In the Plan Area, it is not practical to require that all streets be provided with enhanced mobility features of Complete Streets, since truck traffic must continue to be prioritized on streets designated as truck routes (see Section 6.3, *Truck Access and Circulation*) to maintain efficiency for commercial and industrial businesses. However, other streets

in the Plan Area are fit for including these enhanced mobility features. The following sections discuss the various Complete Street features that will be implemented as a part of the AGSP mobility plan.

Complete Streets Defined

Complete Streets refers to a shift in emphasis from auto-centric streets to ones that are designed for all travel modes. Complete Streets include components such as fully constructed sidewalks and crosswalks, and bicycle lanes. Not only do Complete Streets help promote efficient travel, safety, and healthy lifestyles, they are also a requirement of State law. Some additional benefits of implementing complete streets include:

- » Increased transportation choices
- » Economic revitalization
- » Livable communities
- » Improved safety for all users
- » Reduced dependence on automobiles
- » More walking and bicycling to improve public health and wellness
- » Greenhouse gas reduction and improved air quality

6.2 Vehicular Access and Circulation

6.2.1 EXISTING ROADWAY NETWORK

Figure 1.2, *Local Vicinity Map*, illustrates the existing vehicular access and circulation elements of the Plan Area and immediate vicinity. As shown in the figure, regional access to the Plan Area is provided south and west of the Plan Area via Interstate 10 (I-10) and I-215, while State Route 210 (SR-210), provides immediate regional access to the AGSP from the east. Local access is provided via a number of local roadways including 5th Street, Victoria Avenue, Del Rosa Drive, Palm Avenue, and Tippecanoe Avenue.

The roadway network in the Plan Area is well established with all portions of the Plan Area served by paved streets; however, most of the streets are not yet built to their master plan build-out configuration or condition. Additionally, many of the streets are aging and have deteriorating pavement and/or roadway striping. Some street segments also appear rural in nature as the edge conditions are not properly defined with typical improvements found in urbanized streets, such as curb and gutter, sidewalks, and landscaping. There are numerous opportunities to improve the street network

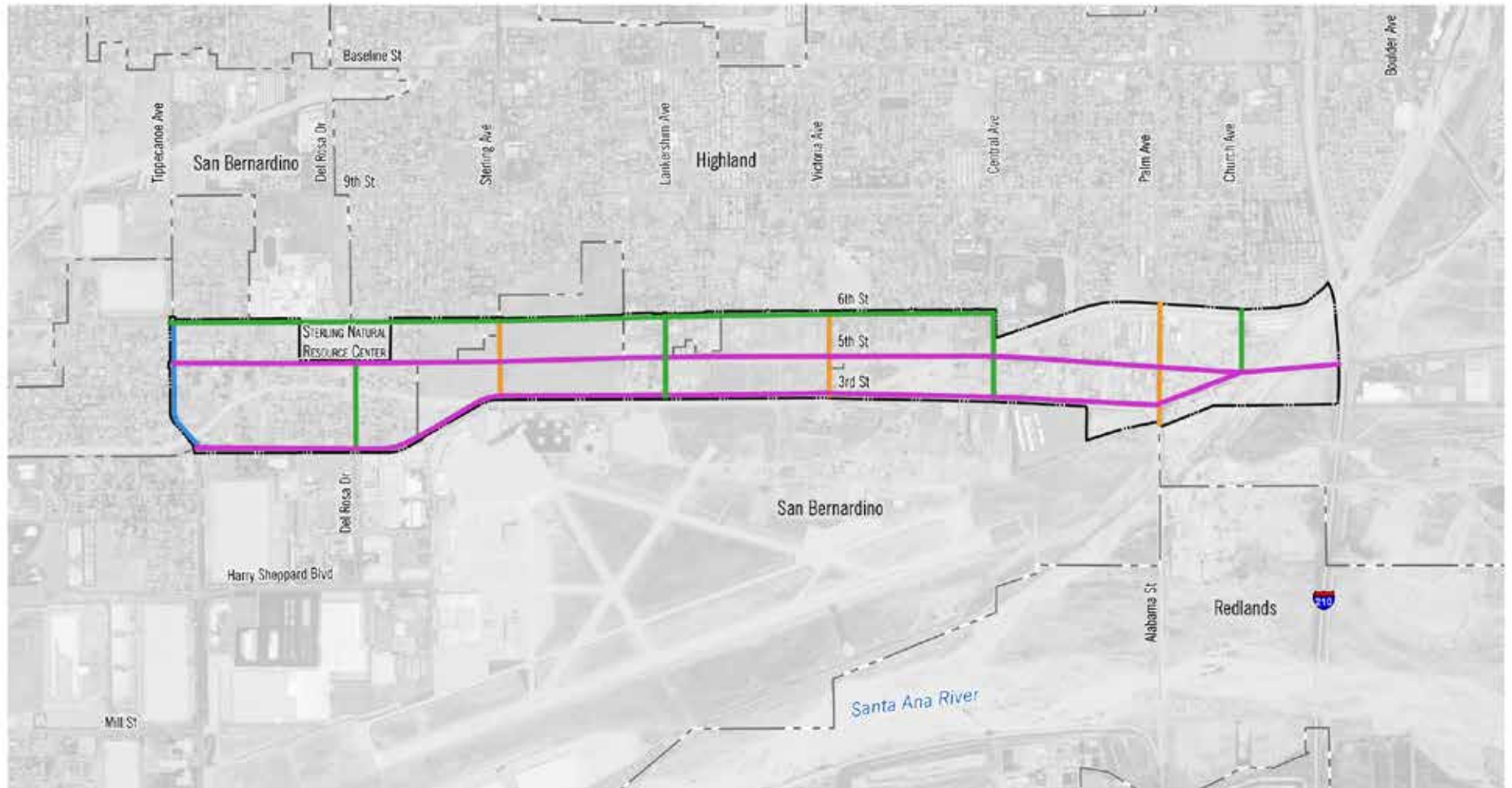
throughout the Plan Area, including the completion and reconfiguration of certain roadway segments and the improvement of intersection crossings and roadway pavement and striping conditions.

The mobility plan takes full advantage of the existing roadway network and backbone system and puts forth the plan for new and expanded improvements. Also, as new development occurs, additional right-of-way dedications will be required to achieve the ultimate roadway configurations identified in the mobility plan and to accommodate planned mobility features such as dedicated on-street bicycle lanes.







6.2.2 STREET CLASSIFICATIONS AND SECTIONS

The streetscape design and layout are an important aspect of the mobility plan. As shown in Figure 6.1, *Street Network and Classifications*, the Plan Area includes a comprehensive vehicular access and circulation system, which consists of a hierarchy of street classifications. The street network generally forms a grid pattern to maximize vehicular access to all areas of the Plan Area. The grid system also allows for the Plan Area to be developed pursuant to the Specific Plan in a phased approach without disrupting continuity or access for existing or developing projects.

FIGURE 6.1 STREET NETWORK AND CLASSIFICATIONS



Source: ESRI, 2016

-  Plan Area Boundary
-  City Boundaries
-  Modified Primary Arterial - 124'
(with 6' Class II Bike Lane)
-  Major - 100'-104'
(with 8' Class II Bike Lanes)
-  Secondary - 88'
-  Collector - 66'

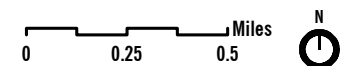


TABLE 6.5 STREET NETWORK AND CLASSIFICATIONS

Street	Specific Plan Classification
North-South Streets	
Tippecanoe Avenue	Secondary Highway
Sterling Avenue ¹	Major Highway– 100'/104'
Del Rosa Drive	Collector
Lankershim Avenue	Collector
Victoria Avenue ¹	Major Highway - 100'/104'
Palm Avenue ¹	Major Highway - 100'/104'
Church Avenue	Collector
East-West Streets	
5th Street	Modified Primary Arterial–124'
3rd Street	Modified Primary Arterial–124'
6th Street	Collector

¹Note: The right-of-way width for streets classified as a Major Highway changes from 100' in San Bernardino to 104' in the City of Highland. An additional 1' is added to the parkway and sidewalk on both sides of the street

The following pages provide descriptions and accompanying street sections of the roadways that serve the uses and users of the Plan Area. The street classifications are defined to administer engineering design standards and traffic operation performance standards, and to develop a unique function and characteristic for each street. The system is based on the functional classification hierarchy that orders streets in terms of their mobility and access functions. While the street sections represent typical street widths and improvements, refinements may be required at intersections or entrances to development sites, which could include the need for additional travel or turn lanes. The street sections are pursuant to those provided in the Circulation Elements of the City of Highland and City of San Bernardino General Plans and the findings and recommendations of the Traffic Impact Study prepared for the Specific Plan.

To improve connectivity and safety for multiple modes of transportation, modifying existing streets may involve expanding one part of the roadway and reducing another. For example, adding a dedicated on-street bicycle lane will require additional street right-of-way. This additional space may be acquired by narrowing travel lanes or acquiring additional land. Following is a

description of the Plan Area's street network and classifications, followed by a description and illustrations of the street sections and standards. Refer to Chapter 5.0, *Design Standards and Guidelines*, for additional design guidelines and standards applicable to the vehicular access and circulation improvements.

There are four classifications that make up the Plan Area's roadway hierarchy, ranging from higher capacity major arterials to lower capacity collector streets. Table 6.1, *Street Network and Classifications* provides a list of the streets and their respective classifications.

MODIFIED PRIMARY ARTERIAL – 124 FEET

Streets that carry high traffic volumes (including regional through traffic) and are the primary thoroughfares linking the Plan Area with adjacent cities and the regional highway system. Driveway access to these streets is typically limited to provide efficient high volume traffic flow. These streets have six lanes (three lanes in each direction) with either a raised median or a center two-way left-turn lane and an ultimate right-of-way of 124 feet. On-street parking and bicycle lanes are prohibited on both sides. Roadways with this classification in AGSP include 5th and 3rd Street.

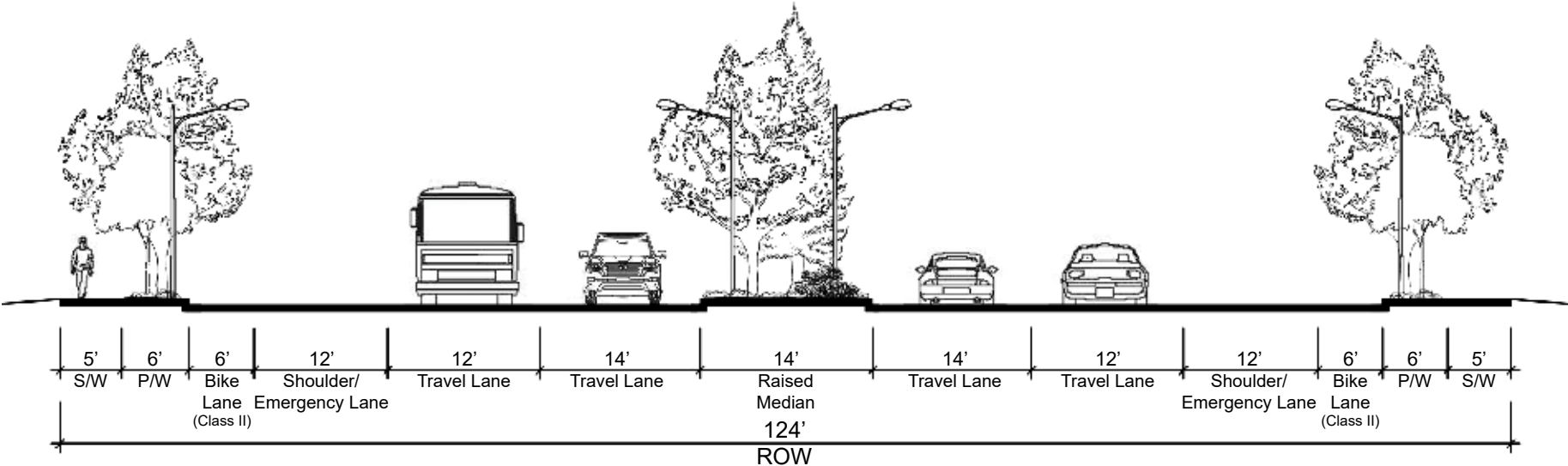
5th Street

An east-west street that extends through and beyond the Plan Area (see Figure 6.1). 5th Street provides a direct connection to I-215 to the west and SR-210 to the east—it serves as the principal roadway that will carry regional traffic to and from the Plan Area. As discussed in Section 6.3, *Truck Access and Circulation*, 5th Street is also a designated truck route. Transitions to four-lane roads along 5th Street outside the project area are expected to be started within the AGSP as well.

3rd Street

An east-west street that extends through and beyond the Plan Area—it forms the southern boundary of the Plan Area. Within the Plan Area, 3rd Street terminates southwest of the intersection of 5th Street at Church Avenue, near the eastern end of the Plan Area. The construction of the extension of 3rd Street to 5th Street is currently in progress. As discussed in Section 6.3, *Truck Access and Circulation*, 3rd Street is also a designated truck route.

FIGURE 6.2 MODIFIED PRIMARY ARTERIAL - 124 FEET



MAJOR HIGHWAY – 100-104 FEET

Streets that carry high traffic volumes (including regional through traffic) and are the primary thoroughfares linking the Plan Area with adjacent cities and the regional highway system. Driveway access to these streets is typically limited to provide efficient high volume traffic flow. These streets have six lanes (three lanes in each direction) with either a raised median or a center two-way left-turn lane and an ultimate right-of-way of 100 feet. On-street parking and bicycle lanes are prohibited on both sides. As the jurisdictions change between the City of San Bernardino and the City of Highland, so does the right-of-way width, which is noted in Figure 6.3¹.

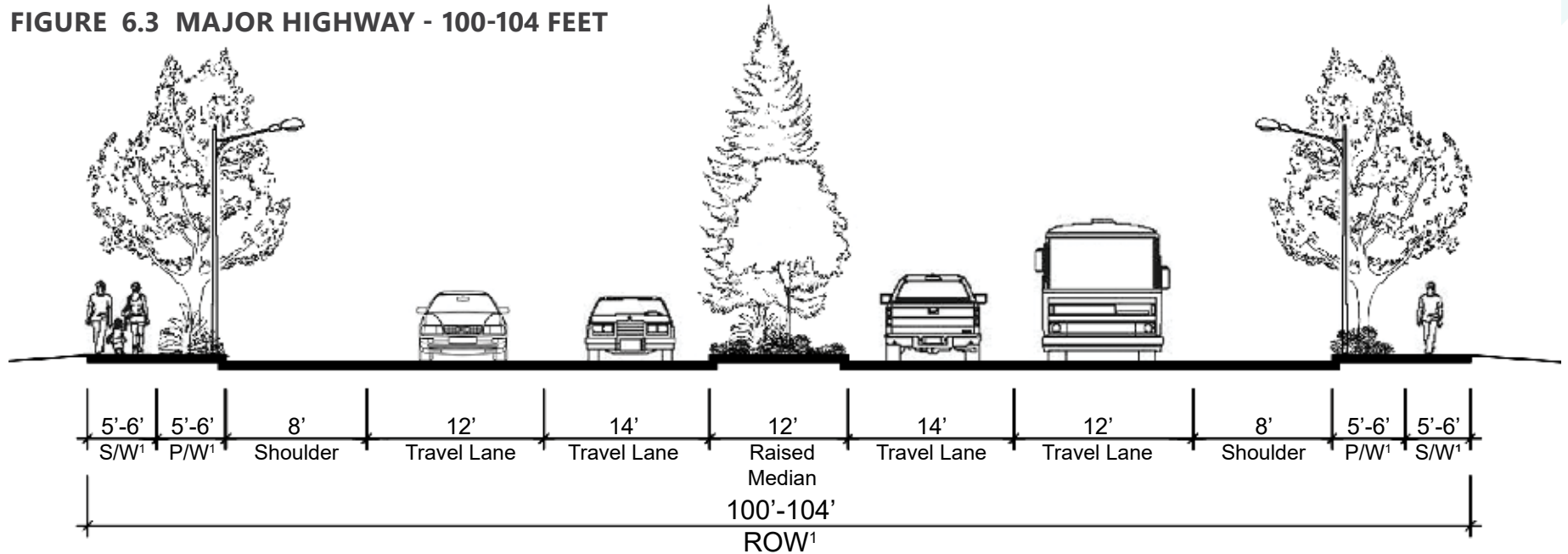
Sterling Avenue

Sterling Avenue is a north-south street that provides three lanes in each direction, with either a raised median or a center two-way left-turn lane. It has an ultimate right-of-way of 100 feet and allows for roadway edge improvements such as curb-and-gutter, sidewalks, streetlights, and landscaping; however, on-street parking and bicycle lanes are prohibited on both sides. As discussed in Section 6.3, *Truck Access and Circulation*, Sterling Avenue is also a designated truck route.

Victoria Avenue

Victoria Avenue is a north-south street that extends through and beyond the Plan Area. It extends onto northern portion of the airport property providing access to two major warehouses just south of 3rd Street. 3rd Street forms the southern Plan Area boundary. As discussed in Section 6.3, *Truck Access and Circulation*, Victoria Avenue is a designated as a Major Highway and truck route.

FIGURE 6.3 MAJOR HIGHWAY - 100-104 FEET



¹Note: ROW changes from 100' in San Bernardino to 104' in the City of Highland. An additional 1' is added to the parkway and sidewalk on both sides of the street

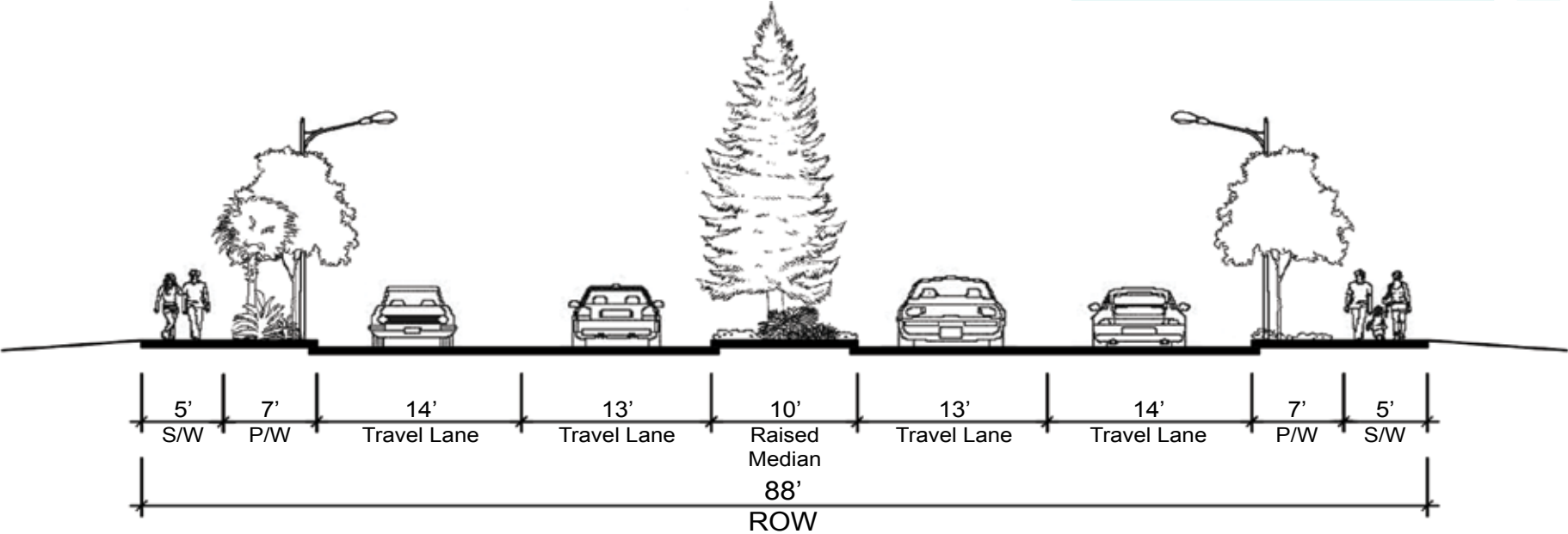
SECONDARY ROADWAYS

Secondary Roadways are streets that provide more local access than major arterials, but also provide support to the major arterials by providing nonlocal through-traffic service. These streets have four lanes (two lanes in each direction) with either a raised median or a center two-way left-turn lane. They have an ultimate right-of-way of 88 feet and allow for roadway edge improvements such as curb-and-gutter, sidewalks, streetlights, and landscaping. On-street parking and bicycle lanes are prohibited on both sides.

Tippecanoe Avenue

Tippecanoe Avenue forms the western boundary of the Plan Area (see Figure 6.1). It is a north-south street that provides a direct connection to SR-210 to the north and I-10 to the south.

FIGURE 6.4 SECONDARY ROADWAY



COLLECTOR STREETS

Streets that distribute local traffic from its point of origin to higher capacity facilities such as secondary and major arterials, as well as regional transportation facilities such as freeways. They are typically two-lane undivided roadways with a 66-foot right-of-way width. On-street parking and bicycle lanes are permitted on both sides.

Collector streets in the Plan Area include:

Lankershim Avenue

A north-south street that extends through and beyond the Plan Area. It terminates at 3rd Street, which forms the southern Plan Area boundary.

Central Avenue

A north-south street that terminates at 3rd Street, which forms the southern Plan Area boundary.

Church Avenue

A north-south street that extends through and beyond the Plan Area. It terminates at 5th Street near the eastern end of the Plan Area.

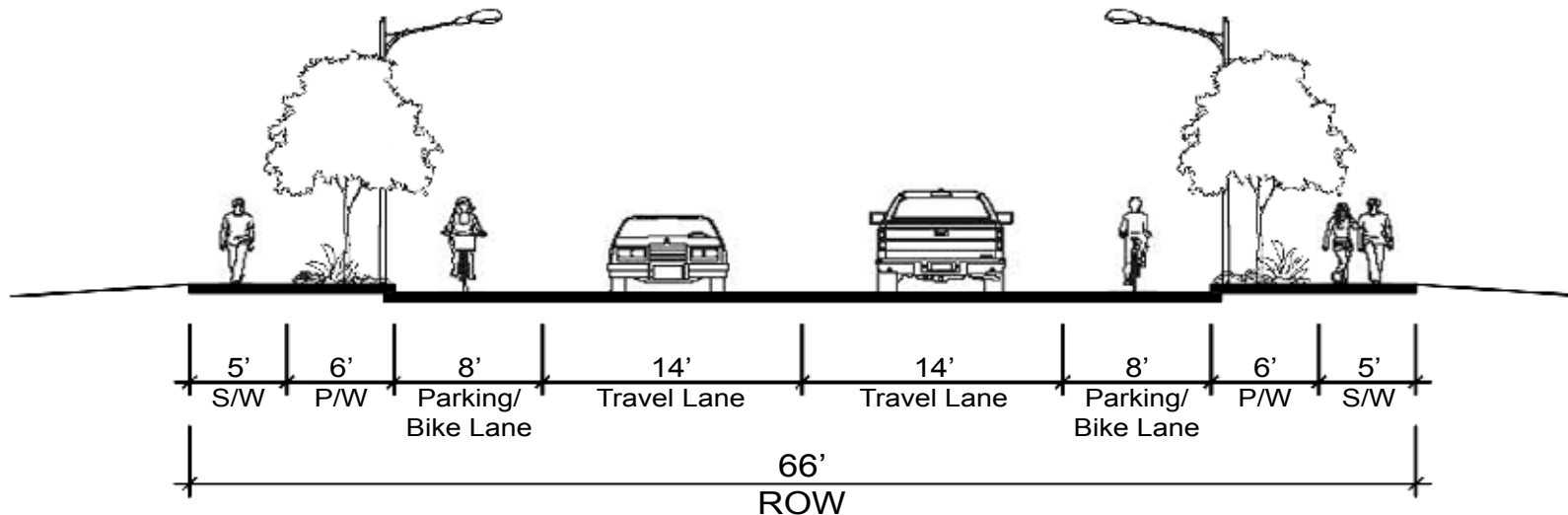
6th Street

An east-west street that extends through and beyond the Plan Area. It terminates at Central Avenue near the eastern end of the Plan Area.

Del Rosa Drive

Del Rosa Drive is a north-south four lane street that extends through and beyond the Plan Area. It terminates at Harry Sheppard Road just south of 3rd Street, which forms the southern Plan Area boundary. Since Del Rosa Drive is classified as a Major Arterial south of 3rd Street in San Bernardino, and is classified as a Secondary Highway north of 6th Street, roadway transitions into the AGSP narrowing Del Rosa Drive to a two-lane roadway configuration from a four-lane roadway configuration is expected at these two points.

FIGURE 6.5 COLLECTOR STREETS



6th Street: Safe Routes to School and Additional Design Standards

Since the northern boundary of the Specific Plan abuts residential and school uses, it is particularly important to minimize the vehicular, pedestrian and bicycle conflicts on this edge of the Plan Area. In November 2019, the Highland City Council approved a street improvement project aimed at bettering “Safe Routes to School” (SRTS) for Warm Springs Elementary, which is 0.5 mile north of the 6th Street and Sterling Avenue intersection. The approved SRTS plan will include the construction of missing curbs and gutters, new concrete sidewalks and drive approaches on the north side of Sixth Street from Del Rosa Drive to Sterling Avenue; minor widening, new curb ramps, curbs, gutter, sidewalks and drive approaches on Elm Street from Sixth to Ninth Street; and relocation of fencing and irrigation and landscaping replacement.

Although the SRTS pathway is not within the AGSP boundary (has been developed on the north side of 6th Street, which is just outside of the Plan Area boundary), the AGSP boundary goes to the centerline of 6th Street. Future development of the SRTS shall be considered when planning and designing vehicular access and circulation improvements along of 6th Street. Specifically, its future implementation will

prohibit truck traffic along 6th Street and will require development sites along 6th Street to consider the location and quantity of access driveways in order to limit the vehicular ingress and egress activity along 6th Street.

The following design standards apply to all development sites with frontage on 6th Street to minimize conflicts between motorized (vehicles and trucks) and non-motorized (pedestrians and bicyclists) modes of transportation and to ensure that the approved and future development of the SRTS is not impacted.

- To the extent possible and feasible, depending on the location and layout of a development site, driveways for employee and customer traffic should be located on the north-south streets (e.g., Del Rosa Avenue, Sterling Avenue) or 5th Street to reduce the dependence on 6th Street for vehicular access to the development site and to ensure that the approved and future development of the SRTS is not impacted.
- Truck access shall be prohibited along 6th Street and shall be assigned to the truck routes described in Section 6.3, *Truck Access and Circulation*.



Since there are several school facilities located just north of the AGSP, it will be important to coordinate new improvements in the Plan Area with approved Safe Routes to School Plans.

LOCAL STREETS

Local streets are typically two-lane streets that are designed to generally serve neighborhoods within residential areas of the Plan Area. There are several variations in local streets depending on location, length of the street, and type of land use. These streets are not illustrated in Figure 6.1. Any future improvements to remaining roadways in the AGSP that are not identified in the Specific Plan shall be regulated by the roadway provisions of the respective jurisdiction (either Highland or San Bernardino).

The following standards apply to vehicular access and circulation:

- » Individual development projects shall be required to provide the necessary roadway improvements along the street frontage(s) to achieve the ultimate roadway configuration and condition, including curb and gutter, pedestrian and bicycle facilities, street lights, and landscaping pursuant to the street sections illustrated below. All necessary roadway improvements shall be determined through the site plan review process, as site-specific development proposals are brought to the City of San Bernardino or City of Highland for processing.

- » Vehicular site access provisions to individual development sites shall be determined through the site plan review process, as site-specific development proposals are brought to the City of San Bernardino or City of Highland for processing.
- » Vehicular site access to individual development sites shall be designed to minimize conflicts between motor vehicles, pedestrians, and cyclists.
- » Vehicular site access points and intersections shall be designed to provide adequate and clear line of sight for approaching pedestrians, cyclists, and vehicles pursuant to adopted engineering standard plans of the City of San Bernardino or City of Highland.
- » Designated site access points (i.e., concrete driveways with secured gates, rolled curb with ground cover) for emergency vehicles and service providers (e.g., police, fire, paramedics) shall be allowed where deemed necessary by the emergency provider.
- » Vehicular facilities shall be improved to provide consistent lane widths on roadways to improve driving conditions and decrease merging congestion. Bottle-neck conditions created by

reduced lanes along the same roadway can lead to unnecessary delay or congestion at merging points.

- » Additional lane capacity at intersections or improved and coordinated signal timing should be provided along roadways experiencing high volumes of traffic.
- » Roadways shall be restriped where faded lane stripes and markings exist.
- » Parkway placement and maintenance will be identified and provided by the developer. A Landscape Maintenance District (LMD) or Master Community Facilities District (MCFD) shall be implemented if the developer fails.

6.3 Truck Access and Circulation

Truck traffic is anticipated to be a significant component of AGSP's mobility plan. The Plan Area serves as a gateway to the San Bernardino International Airport (which supports many aviation businesses, including air cargo) and existing and future business and industries (i.e., warehouse and distribution centers, eCommerce, logistic centers) in, around and beyond the Plan Area that rely heavily on local and regional truck transportation.

The Specific Plan puts forth the comprehensive system of truck routes linking the airport, businesses and industries with major roadways and freeway connections in and around the Plan Area and throughout the region. A truck route is a path of circulation required for all vehicles exceeding set weight or axle limits—it follows major arterials through commercial or industrial areas and avoids sensitive areas.

In concert with the City of Highland's General Plan Circulation Element, the mobility plan provides designated truck routes for use by commercial/industrial trucking that minimize impacts on local traffic and neighborhoods both in and around the Plan Area, and also to improve air quality and minimize congestion, noise

pollution and deterioration of the roadway infrastructure. As shown in Figure 6.6, *Truck Routes*, the mobility plan designates key roadways in and beyond the Plan Area as designated truck routes—these include the east-west streets of 5th Street and 3rd Street and the north-south streets of Sterling Avenue, Victoria Avenue, and Palm Avenue. Truck access along all other streets in the Plan Area is prohibited.

The following standards apply to truck access and circulation.

- Truck traffic shall be assigned to the truck routes illustrated in Figure 6.6. Truck traffic along any non-designated truck route shall be prohibited.
- Adequate signage shall be provided at business driveways and where appropriate and feasible along streets to inform truck drivers of designated truck routes.
- A designated truck route exhibit/map shall be provided to all truck drivers delivering or picking up goods from businesses in the Plan Area.
- To the extent feasible, designated (single-use or shared) truck parking lots should be provided in development sites or key areas of the Plan Area to allow trucks that may arrive early to their destination to park and wait in the event that onsite queues of the destination site get to

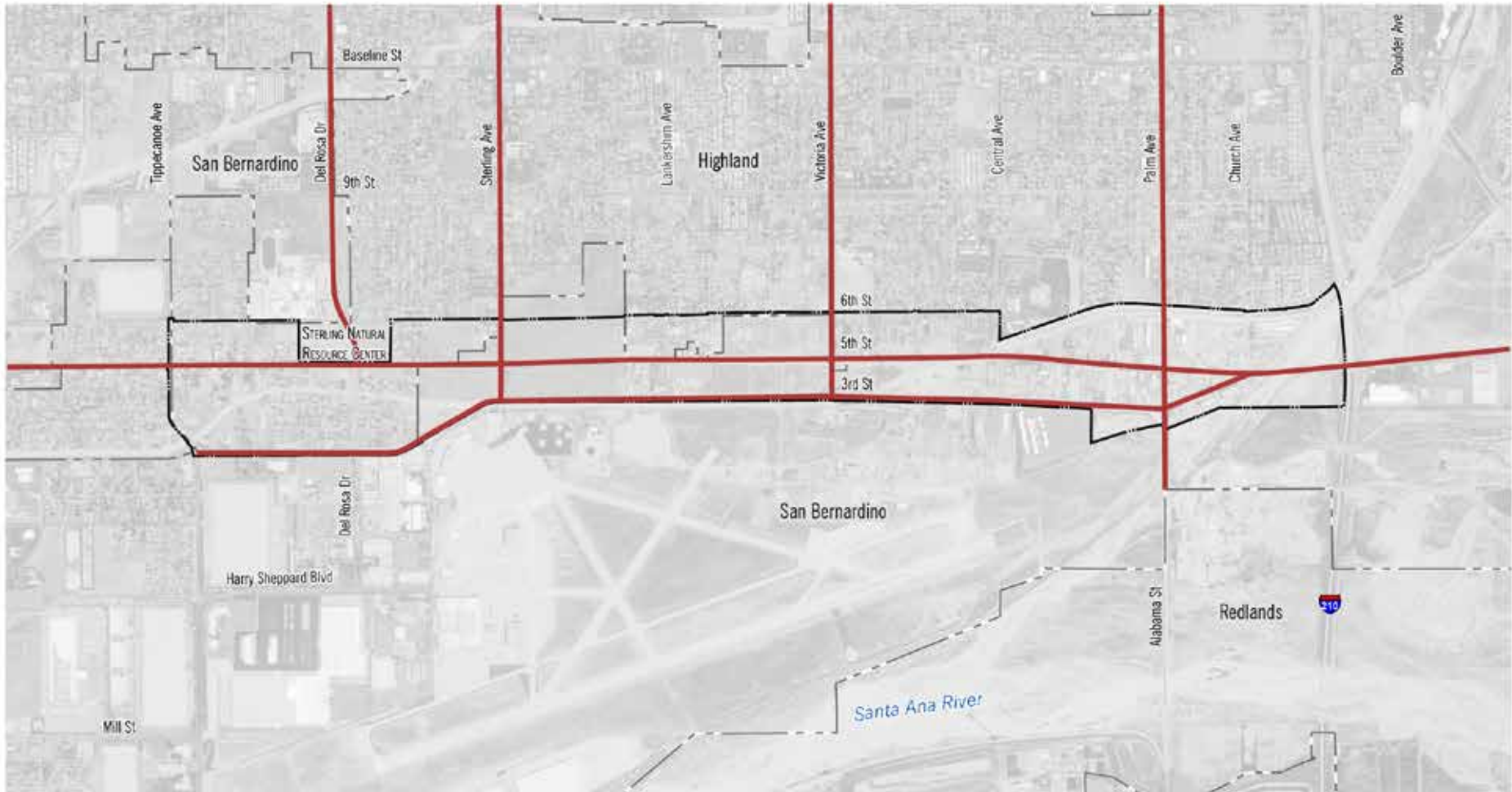
a point that prohibit trucks from fully entering the site and thereby creating truck queues onto the street. The provision of designated truck parking lots provides a much needed area for trucks to park when a business is busy and truck access into the truck yard or loading/unloading area is slow. This will also prevent trucks from stacking out onto the streets. The established truck route system should be periodically reviewed for appropriateness and capacity in the context of expanded activity and development plans at the San Bernardino International Airport (i.e., operation of the Amazon Air Regional Air Hub) and commercial/industrial business growth along the designated truck routes.

Designated Truck Parking Lots




Stand by truck parking shall be accommodated on-site or in an identified truck parking lot, and is not within the public right-of-way.

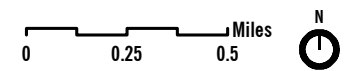
A truck parking strategy identifying a joint use parking area for all businesses within the AGSP will need to be created as a part of the AGSP implementation actions, identifying where they should be located, and how they will be owned, funded, maintained and managed.

FIGURE 6.6 TRUCK ROUTES



Source: ESRI, 2016

-  Plan Area Boundary
-  Truck Routes
-  City Boundaries



6.4 Pedestrian Access and Circulation

Pedestrian facilities include sidewalks, walkways, crosswalks, signals, and illumination. These facilities are an important part of the Plan Area's non-motorized transportation network as they help implement the many benefits of Complete Streets. Pedestrian facilities provide a vital link between many other modes of travel and between destinations. Pedestrian facilities also provide a vital link for commuters who use other transportation facilities such as buses as well as those who attend nearby schools.

Existing pedestrian facilities in the Plan Area mainly consist of sidewalks, crosswalks, and signals. However, along the majority of the roadways in the Plan Area, pedestrian access and circulation have not yet been installed. For example, for the stretch of Del Rosa Drive from 3rd Street to 6th Street sidewalks are nonexistent on both sides of the street. Currently, the edge condition of this roadway consists entirely of graded dirt shoulders with no buffers for security or trees for shade and comfort. Del Rosa Drive provides direct access to many residential neighborhoods and therefore lacks the pedestrian facilities needed for residents.

In response to the existing pedestrian facility issues, the mobility plan requires upgrading and completing the sidewalk network; upgrading existing crosswalks and providing new ones where necessary; upgrading or installing push buttons and countdown signals where required; and providing better accessibility between land uses. The addition of these pedestrian facilities will create a more complete multimodal network for the Plan Area and help implement Complete Streets.

The following standards apply to pedestrian access and circulation.

- Pedestrian access and circulation improvements identified in the roadway sections shall be provided as individual development projects in the AGSP are constructed.
- All development projects and plans shall be designed to facilitate pedestrian access within and connect to the Plan Area's pedestrian network, and to ensure a safe and efficient pedestrian environment.
 - » Clearly defined pedestrian paths shall be provided from parking areas to primary building entrances and sidewalks along the site's perimeter.



Parkways are recommended to separate pedestrians from the street traffic, and berms or other landscape design features are encouraged to be used to screen industrial uses.

- » Pedestrian connections within parking areas should include landscaping elements to provide visual interest and relief and to provide safety and security for pedestrians
- » Parkway-separated sidewalks with landscaping and shade trees should be provided where possible to provide a buffer from the street, increased safety and convenience for pedestrians, and add color and visual interest to the public realm.
- » Sidewalks and walkways shall be free of obstacles within the pathway, including vehicular overhangs, risers, utilities, and other structures.
- » Sidewalks and walkways shall be well lit for nighttime use and to promote safe walking.
- » Sidewalk gaps shall be filled to provide a continuous sidewalk network.
- » Pedestrian connectivity should be improved by creating a streetscape that promotes safe walking.
- » Safe and inviting pedestrian facilities shall be designed with Crime Prevention through Environmental Design (CPTED) principles in mind.
- » Highly-visible and well-marked crosswalks and warning strips (where necessary) shall be provided at all controlled intersections.
- » Push buttons and countdown signals shall be upgraded or provided at signalized intersections.
- » Pedestrian walk times shall be reviewed at signalized intersections to ensure that enough pedestrian clearance time is provided in accordance with the requirements of the most current California Manual on Uniform Traffic Control Devices published by the Federal Highway Administration.
- » All sidewalks, walkways, and crosswalk ramps and warning strips shall comply with Americans with Disabilities Act (ADA) standards and Title 24 of the California Code of Regulations.

6.5 Bicycle Access and Circulation

Similar to pedestrian facilities, bicycle facilities are an important part of the Plan Area's non-motorized transportation network as they provide an alternative to the automobile to access the employment-generating uses in the AGSP.

Currently, the only existing bicycle facilities in the Plan Area are dedicated on-street bicycle lanes on both sides of 5th Street from Tippecanoe Avenue on the west to SR-210 on the east, and on both sides of 3rd Street from Victoria Avenue to Palm Avenue. In many areas along 5th Street the striping and roadway conditions of the bicycle lane are in poor condition, providing unsafe conditions for bicyclists. Also, along 5th Street and 3rd Street, adequate bike path signage is lacking. The existing bicycle network provides limited connections throughout and beyond the Plan Area.

Additionally, bicyclists commonly use the existing sidewalks and unpaved roadway edges for local circulation, which indicates a lack of bicycle infrastructure for the community. Further, without safe bicycle systems, the use of sidewalks by bicyclists makes them less safe for pedestrians.

New bicycle paths in the Plan Area are important in providing connectivity in the Plan Area and to existing and future bicycle trails serving the Plan Area and the cities of Highland and San Bernardino. To better connect the Plan Area to employment, recreation, and shopping in and beyond the Plan Area, the provision of new and improved bicycle paths is a key goal of the mobility plan. In addition to implementing new bicycle paths, new bicycle amenities

(e.g., bicycle parking and storage) can increase convenience and encourage biking as a viable transportation option.

Bicycle circulation to, within, and beyond the Plan Area is provided on separated bikeways, streets with designated bike lanes, and off-street pathways. These facilities are designated by three classification and are illustrated in Figure 6.7, *Bicycle Network*.

CLASS I BIKEWAYS

A Class I bikeway is a dedicated travel-way for bicyclists that is not served by roadways (off-street). The most common applications for these bikeways are along rivers, canals, and utility rights-of-way, or within and between parks and open space areas. Class I bikeways are for non-vehicular use only with opportunities for direct access, commuter use, and recreational benefits, with right-of-way for the exclusive use of bicycles and pedestrians. As shown in Figure 6.7, *Bicycle Network*, there are currently no existing Class I bikeways in or around the Plan Area; however, they are proposed along 3rd Street.

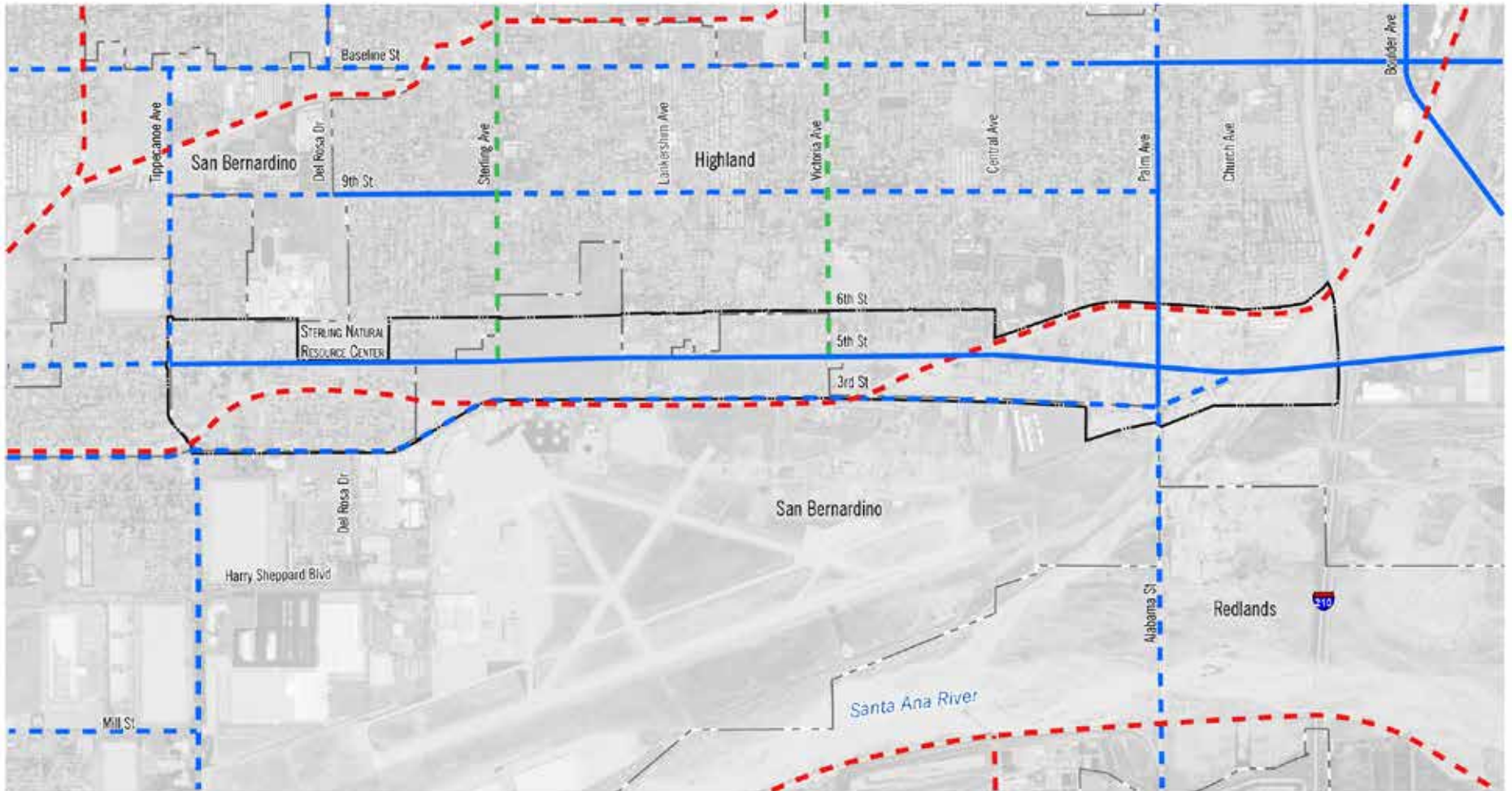
CLASS II BIKEWAYS

Class II bikeways provide a delineated right-of-way along roadways assigned to bicyclists to enable more predictable movements, accommodating bicyclists through on-street corridors. Bike lane signs, pavement markings and physical barriers help define these



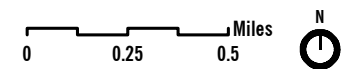
It will be particularly important to provide safe bicycling spaces along identified roadways to minimize the potential conflicts between bicyclists and the truck traffic generated by new industrial uses.

FIGURE 6.7 BICYCLE NETWORK



Source: ESRI, 2016

- | | | |
|--------------------|--------------------|--------------------|
| Plan Area Boundary | Existing Class I | Proposed Class I |
| City Boundaries | Existing Class II | Proposed Class II |
| | Existing Class III | Proposed Class III |



facilities. As shown in Figure 6.7, *Bicycle Network*, existing Class II bikeways exist on both sides of 5th Street from Tippecanoe Avenue on the west to SR-210 on the east, and on both sides of 3rd Street from Victoria Avenue to Palm Avenue. A new Class II bikeway is proposed along 3rd Street.

CLASS III BIKEWAYS

Class III bikeways are shared facilities that serve either to provide continuity to other bicycle facilities or designate preferred routes through high demand corridors. Bike routes are normally shared with motor vehicles on the street, or with pedestrians on sidewalks and are typically used in lower-volume roadways. In either case, bicycle use is secondary. This type of bikeway is identified by signage or through installation of arrows along the roadway. As shown in Figure 6.7, there are no existing Class III bikeways in or around the Plan Area; however, they are proposed along Sterling Avenue and Victoria Avenue.

As noted earlier, there is an existing dedicated on-street bicycle lane on both sides of 5th Street from Tippecanoe Avenue on the west to SR-210 on the east. However, even though 5th Street is a designated truck route (see Figure 6.6, *Truck Routes*), the Class II bikeway will be retained on both 5th Street and 3rd Street, from Tippecanoe

Avenue on the west to Palm Avenue on the east (see Figure 6.7, *Bicycle Network*). This decision may be revisited in the future when a proposed Class I bike trail is installed.

The following standards apply to bicycle access and circulation. Refer to Chapter 5.0, *Design Standards and Guidelines*, for additional standards.

- » Bicycle routes shall be provided pursuant those identified in Figure 6.7.
- » All development projects and plans shall be designed to facilitate bicycle access within and connect to the Plan Area's bicycle network, and to ensure a safe and efficient environment for bicyclists.
- » Adequate signage shall be provided for all existing and proposed bicycle facilities, both on- and off-street.
- » Bicycle connectivity should be improved by creating an active streetscape that promotes safe cycling.
- » Commercial, office, and other non-residential development shall provide bicycle parking in accordance with the California Green Building Code Standards, CALGreen Section: 5.106.4 Bicycle parking.



Example of a Class II Bikeway



OmniTrans provides transit service to the Plan Area and provides an alternative transportation option and more choices to access the AGSP in addition to a car.

- » Accessible, secure, and well-signed bicycle parking and/or storage facilities shall be provided at convenient and visible locations for individual developments and businesses.
- » Safe and inviting bicycle facilities shall be designed with Crime Prevention through Environmental Design (CPTED) principles in mind.
- » The provision of bicycle racks at bus stops should be considered to encourage first and last mile trips.

6.6 Public Transit

Transit service to the Plan Area is provided by OmniTrans, which serves the Cities of San Bernardino and Highland and other surrounding cities. Currently, only OmniTrans Route 15 travels on any of the streets within the Plan Area, as shown in Figure 6.8, *Transit Routes*. Route 15 operates between the Cities of Redlands and Fontana, traveling through the Plan Area along Tippecanoe Avenue, Del Rosa Drive, Central Avenue, and Palm Avenue.

Key stops along Route 15 include the San Bernardino County Court Building, Redlands Mall, San Bernardino Stadium, San Bernardino Valley College, Fontana Metrolink, and the San Bernardino Transit Center. At the San Bernardino Transit Center, passengers can transfer to other OmniTrans routes, as well as to Riverside Transit, Mountain Transit, Pass Transit and Victor Valley Transit Authority routes, or to Metrolink.

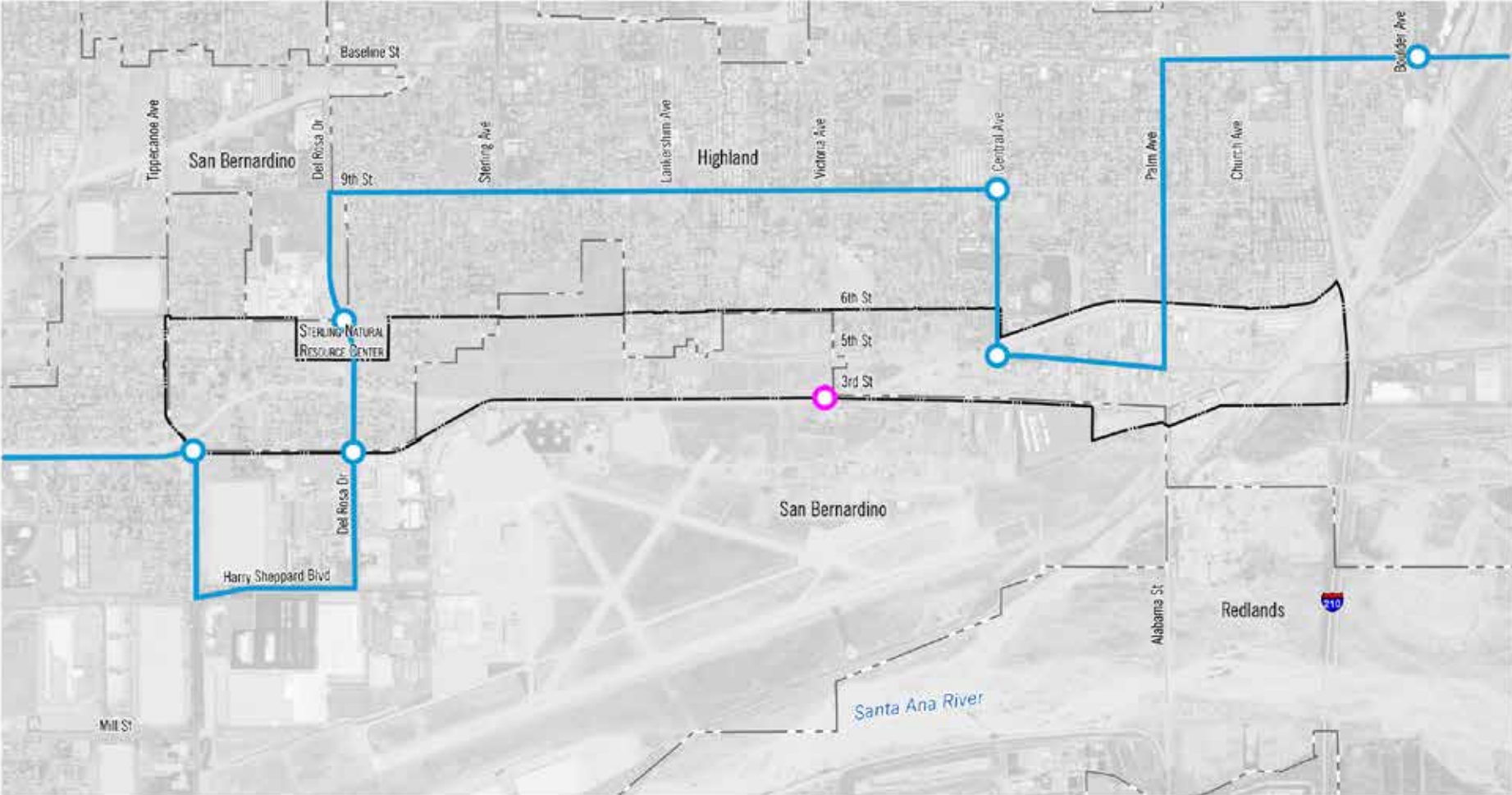
Route 15 operates on weekdays from 6:40 AM to 10:40 PM with approximately 30-minute headways (the time between bus arrivals), and on Saturdays and Sundays from approximately 6:40 AM to 7:25 PM with approximately 1-hour headways.

The OmniTrans bus stops located in and near the Plan Area include:

- Tippecanoe Avenue at 3rd Street
- Del Rosa Drive at 3rd Street
- Del Rosa Drive at 6th Street
- Central Avenue at 5th Street
- Central Avenue at Palm Avenue

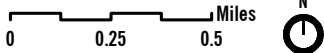
Aside from being limited to one bus route and a few bus stops, there is also a lack of basic amenities at all existing bus stops in the Plan Area, which are essential to

FIGURE 6.8 TRANSIT ROUTES



Source: ESRI, 2016

-  Plan Area Boundary
-  Omnitrans Route 15
-  Bus Stop
-  Potential Future Bus Stop
-  City Boundaries



the comfort, enjoyment, and wellbeing of riders. To improve these existing conditions, increase awareness, attract ridership, and build on the many benefits of Complete Streets, the mobility plan looks to identify ways to improve public transit in the Plan Area. For example, Route 15 could be revised in the future to provide bus service to the new Amazon Air Hub and The Landing warehouses on Victoria Avenue south of 3rd Street.

The following standards apply to public transit:

- » New development should integrate public transit stops into the site design based on local jurisdictions input.
- » Expanded public transit routes, schedules and stops should be considered to create better connections between Plan Area and surrounding communities.
- » Establish a partnership with OmniTrans to identify potential opportunities for new routes or modifications to existing routes as new development or redevelopment occurs in and around the Plan Area.
- » Establish a partnership with OmniTrans to upgrade existing bus stops and design bus stops to include dedicated right-of-way for buses in the form

of bus cutouts; proper furnishings including shelter, seating, and lighting; safe loading/unloading areas for all riders; bicycle storage and parking; and adequate pedestrian connectivity. All bus stop improvements shall be in accordance with the OmniTrans Transit Design Guidelines.

- » The provision of bicycle racks at bus stops should be considered to encourage first and last mile trips.
- » Businesses should provide employees with transit awareness packages that include information on bus routes, schedules, and stops.
- » Transit stop amenities should be planned and designed into projects to reduce street clutter and to encourage transit use within the Plan Area.

6.7 TDM Strategies

The following Transportation Demand Management (TDM) strategies have been identified to reduce Vehicle Miles Traveled (VMT) for the AGSP. As indicated in the City

of San Bernardino and SBCTA guidelines, the following choices are available to applicants in the AGSP:

- » Modify the project's built environment characteristics to reduce VMT generated by the project.
- » Implement TDM measures to reduce VMT generated by the project.
- » Participate in a VMT fee program and/or VMT mitigation exchange/banking program (if they exist) to reduce VMT from the project or other land uses to achieve acceptable levels.

Given a jurisdiction's land use context, the following key strategies may be considered for each project:

- » Provide pedestrian network improvements (potential VMT reduction 0.5% - 5.7%)
- » Provide traffic calming measures (potential VMT reduction 0% - 1.7%)
- » Implement car-sharing program (potential VMT reduction 0.3% - 1.6%)
- » Increase transit service frequency/speed (potential VMT reduction 0.3% - 6.3%)
- » Encourage telecommuting and alternative work schedules (potential VMT reduction 0.2% - 4.5%)

- » Provide ride-share programs (potential VMT reduction 2.5% - 8.3%)

The project proposes pedestrian sidewalks along roadways within the Specific Plan area. The project site is accessible by transit via OmniTrans Bus Route 15, which has stops at the following locations within or near the Specific Plan area:

- » Tippecanoe Avenue at 3rd Street
- » Del Rosa Drive at 3rd Street
- » Del Rosa Drive at 6th Street
- » Central Avenue at 5th Street
- » Palm Avenue at 5th Street

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CHAPTER 7.0

INFRASTRUCTURE

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CHAPTER 7.0

INFRASTRUCTURE

The Plan Area is supported by an extensive infrastructure network and utilities and service systems that serve area residents and businesses. Most of the existing infrastructure in the Plan Area is adequate to serve existing and future uses, although it is aging and will require periodic upgrades and expansion. As businesses in the Plan Area are developed, additional infrastructure investment will be required to provide an adequate level of service to accommodate both existing uses and the projected growth.

The purpose and intent of this chapter is two-fold: 1) to identify the infrastructure and utilities and service systems that will be needed to adequately serve the existing and future land uses of the Plan Area, and 2) to ensure that changes in land use also improve the area's infrastructure, utilities and service systems to support the new uses. The improvements outlined in this chapter will help facilitate the Plan Area's transformation to a more sustainable and efficient area. Future improvements include identifying ways that infrastructure can support existing and new development while promoting sustainable objectives of conservation, efficiency, and natural resource protection.



In 2018, crew demolished and removes damaged portions of the City Creek wash on the south side of Third Street to install new concrete panels through an IVDA rehabilitation project. City Creek is one of the primary drainage systems in the AGSP. Source: Highland Community News.

Specific actions (e.g., economic actions and strategies) for the infrastructure and utilities and service systems that are necessary to implement the Specific Plan are identified in Chapter 8, *Administration, Implementation, and Financing*. Refer to Chapter 5.0, *Design Standards and Guidelines*, for design guidelines and standards applicable to the various infrastructure and utilities and service systems.

7.1 Water Infrastructure System

7.1.1 EXISTING WATER SYSTEM

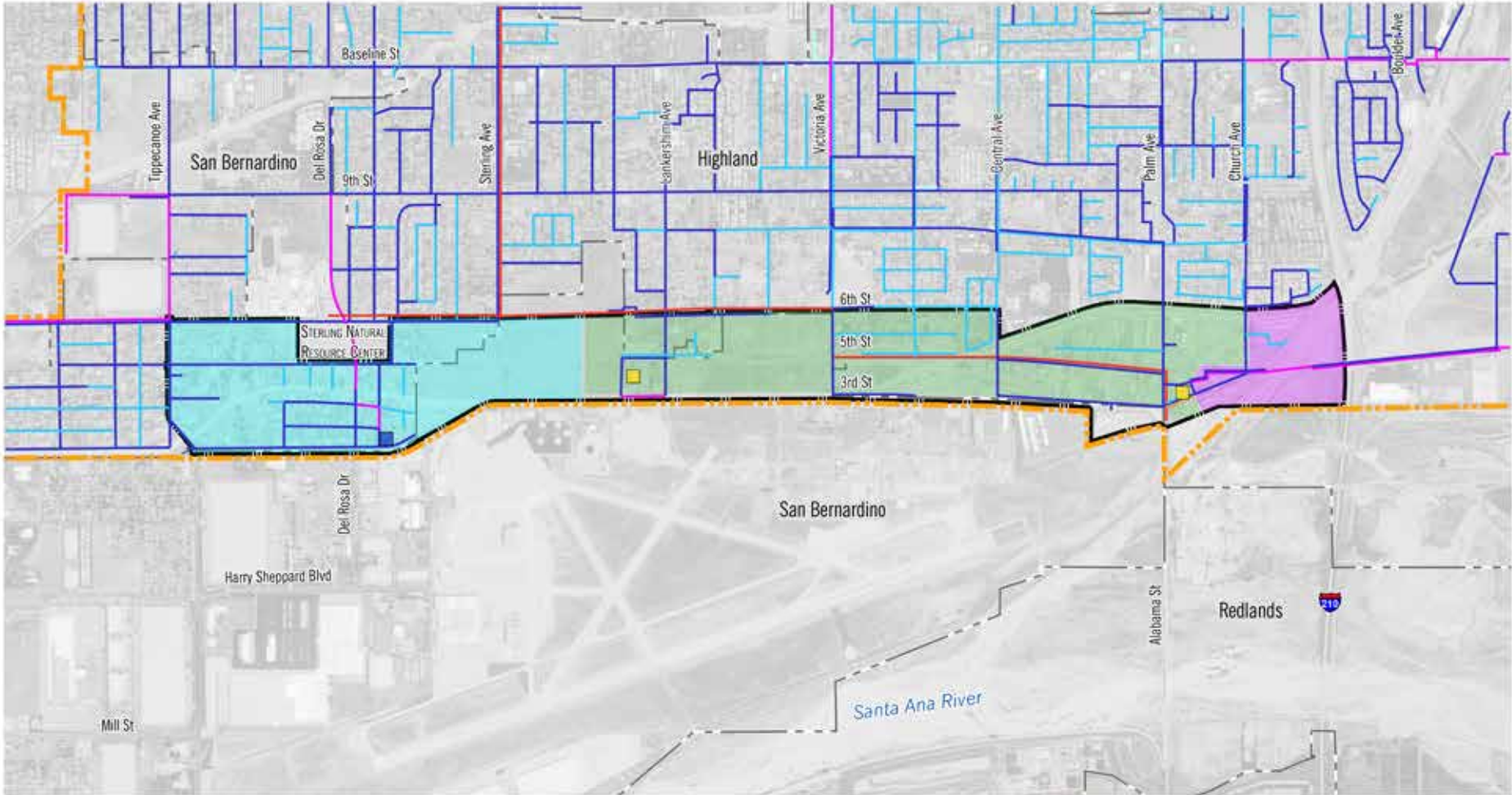
Potable water is provided to the Plan Area by East Valley Water District (EVWD). EVWD's existing supply sources consist of local groundwater from wells, surface water from the Santa Ana River obtained through the North Fork Water Company, and imported water from the State Water Project (SWP). EVWD purchases imported SWP water from the San Bernardino Valley Municipal Water District (SBVMWD) to meet a portion of system water demands. This water is treated in conjunction with Santa Ana River water at EVWD's surface water treatment plant, Plant 134, which has a design and modeled capacity of eight million gallons per day.

EVWD's service area is divided into 14 pressure zones. The Plan Area is in a portion of EVWD's Lower, Intermediate and Upper

Zones. EVWD operates and maintains existing water distribution infrastructure throughout the Plan Area, including booster stations, a well, and pipelines. There are major east-west pipelines in 6th Street, some pipelines in 5th Street, and some pipelines in 3rd Street. The backbone water system in the Plan Area includes a combination of 6- to 36-inch (in diameter) pipelines in the aforementioned streets. The existing water infrastructure system and zones are shown in Figure 7.1, *Water Infrastructure System*.

San Bernardino Municipal Water Department (SBMWD) does not supply water to the City of Highland, portions of the City of San Bernardino and unincorporated areas of the San Bernardino County; however, SBMWD has infrastructure in the Plan Area in 3rd Street. SBMWD installed a 24-inch pipeline in 2019 that has an intertie with the Plan Area at Perimeter Road into the Perimeter Booster Station, which is 1,240 feet east of Sterling Avenue. At the intersection of Tippecanoe Avenue and 3rd Street there is an intertie with the Plan Area via a 24-inch pipeline. The 24-inch pipeline continues east on 3rd Street and terminates east of Del Rosa Drive. This 24-inch pipeline supplies the distribution system south of 3rd Street, specifically, for the San Bernardino International Airport.

FIGURE 7.1. WATER INFRASTRUCTURE SYSTEM

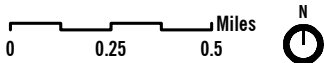


Source: ESRI, 2016

- Plan Area Boundary
- City Boundaries
- EVWD Service Area Boundary

PROPOSED AND EXISTING FACILITIES

- | | | |
|-----------------|-----------------------------|---------------|
| Booster Station | Pipeline by Diameter | 8 - 13 inches |
| Well | > 24 inches | 4 - 7 inches |
| | 14 - 24 inches | < 4 inches |



7.1.2 PROPOSED WATER SYSTEM

Based on EVWD's 2019 Water System Master Plan (WSMP) Build-Out Water System Improvements outlined in Chapter 8 of the WSMP, there are no major water infrastructure improvements (e.g., distribution pipelines) planned or required for the Plan Area. The existing backbone water infrastructure system shown in Figure 7.1, *Water Infrastructure System*, will have enough capacity to continue to serve the future water needs of existing and new development in the Plan Area so long as the maximum development thresholds identified in Chapter 4.0, *Land Use and Standards*, are not exceeded. However, new development in the Plan Area may require the replacement of existing or construction of new onsite water pipelines on individual parcels to connect to EVWD's water distribution pipelines.

Additionally, preliminary analysis indicates that offsite improvements (outside the Plan Area but within EVWD's service area) to the existing EVWD system will be required to ensure reliable water delivery to EVWD's service area, including future development in the Plan Area. The offsite water system improvements include:

- **Project 1** - 3.5 million gallon storage reservoir in the Lower Zone (one of EVWD's 14 pressure zones).

- **Project 2** - New Well 01 in the Intermediate Zone (one of EVWD's 14 pressure zones).

It should be noted that the locations of these improvements have not yet been determined as EVWD will have to prepare a preliminary design to site the reservoir and determine where to drill a pilot hole for the aforementioned Well 01.

EVWD's regional distribution pipelines are typically replaced (when needed) via impact fees collected by EVWD; whereas the local service lines (onsite water pipelines) that provide service to individual parcels are typically provided by developers at the time of project construction. EVWD uses water rates to replace aging infrastructure, development fees are collected to offset the need for system enhancements and to contribute to the system investments made to-date.

In the case of the Specific Plan, where a high degree of development and redevelopment is anticipated, any replacement of the on-site water pipelines is assumed to be required at the time of such development or redevelopment. At the development stage of individual development projects, a more refined analysis is required be performed to confirm the following:

- Final elevation and grades

- Pipe corridor and sizes
- Storage volumes
- Connection points to on-/offsite distribution systems
- Phasing

7.1.3 RECYCLED WATER SYSTEM

EVWD is currently constructing the Sterling Natural Resource Center (SNRC), which will be a state-of-the-art facility in the City of Highland that will provide a sustainable new water supply to boost the region's water independence. The SNRC will occupy approximately 16 acres on both sides of North Del Rosa Drive between East 5th Street and East 6th Street. The eastern portion of the facility will be closed to the public for treatment activities, however the western portion will include demonstration gardens and walking paths for the community.

The SNRC will provide tertiary treatment to wastewater generated within EVWD's service area. Upon completion, the SNRC will be capable of treating up to 10 million gallons of wastewater per day. The SNRC will recharge the local Bunker Hill Groundwater Basin and will provide community education, training and space, neighborhood improvements, and will

supply recycled water to create new habitat for the Santa Ana Sucker, an endangered fish species in the area.

7.1.4 WATER STANDARDS AND REQUIREMENTS

The following standards and requirements apply to water infrastructure.

- Individual development projects shall be required to adhere to the provisions of all EVWD ordinances regarding water demand allotment and water supply (pressure, velocity, fire flow, etc.) in EVWD's service area.
- Proposed water infrastructure improvements shall be required to be designed, constructed and installed in accordance with applicable requirements of the City of Highland and/or City of San Bernardino Municipal Codes and their established engineering standards, and to the satisfaction of EVWD and/or the engineering divisions of both cities.
- Project applicants/developers shall pay any and all EVWD-established fees for connecting to the water system or for any needed upgrades resulting from new development. Depending on the size, type



The Sterling Natural Resource Center is a recycled water facility currently under construction adjacent to the AGSP Project Area. Source: EVWD, 2020

of development and anticipated water demand, EVWD may impose a condition that the developer pay for all or a portion of the cost of improving the link between the development site and the water system.

- Individual development projects shall require that a site-specific analysis be conducted for fire flows pursuant to the requirements of the City of Highland Fire Department and/or the San Bernardino County Fire Department.
- Irrigation systems should incorporate water-conserving methods and water-efficient technologies such as drip emitters, evapotranspiration controllers, and moisture sensors. Opportunities to reuse rainwater and/or grey water for irrigation should be explored.
- Installation of gray water systems that direct certain used water from a building to landscape areas rather than discharging to public sewers should be provided where feasible.
- Water efficient fixtures shall be used in new buildings.
- If recycled water becomes available for future public or private uses, recycled water infrastructure shall be installed to use this valuable resource.

7.2 Wastewater Infrastructure System

7.2.1 EXISTING WASTEWATER SYSTEM

The existing wastewater system in EVWD's service area (which includes the Plan Area) consists of approximately 213 miles of pipeline, 4,400 sewer manholes, 7 siphons, and 5 diversion structures. The pipelines range in size from 4 to 24 inches in diameter. The existing wastewater system conveys flows into SBMWD's East Trunk Sewer, which outlets to the San Bernardino Water Reclamation Plant. The East Trunk Sewer is approximately 9 miles long ranging in size from 8 to 54 inches in diameter. The siphons convey flows in areas where physical constraints prevent gravity flow. The diversion structures are generally installed in manholes to divert flows along a specific route in case of a blockage in the system or during times of high flow. EVWD's wastewater system does not include any lift stations or force mains. All flow is conveyed by gravity to the East Trunk Sewer until the SNRC becomes operational, at which points flows generated by EVWD's customers will be directed to the new facility.

EVWD operates and maintains all of the wastewater pipelines in the Plan Area, which are gravity collection system pipelines that

vary in size and are made mostly of vitrified clay pipe. The backbone wastewater system in the Plan Area includes a combination of 8- to 24-inch (in diameter) east-west pipelines in 6th Street, 5th Street, 4th Street and 3rd Street. The existing wastewater infrastructure system is shown in Figure 7.2, *Wastewater Infrastructure System*.

7.2.2 PROPOSED WASTEWATER SYSTEM

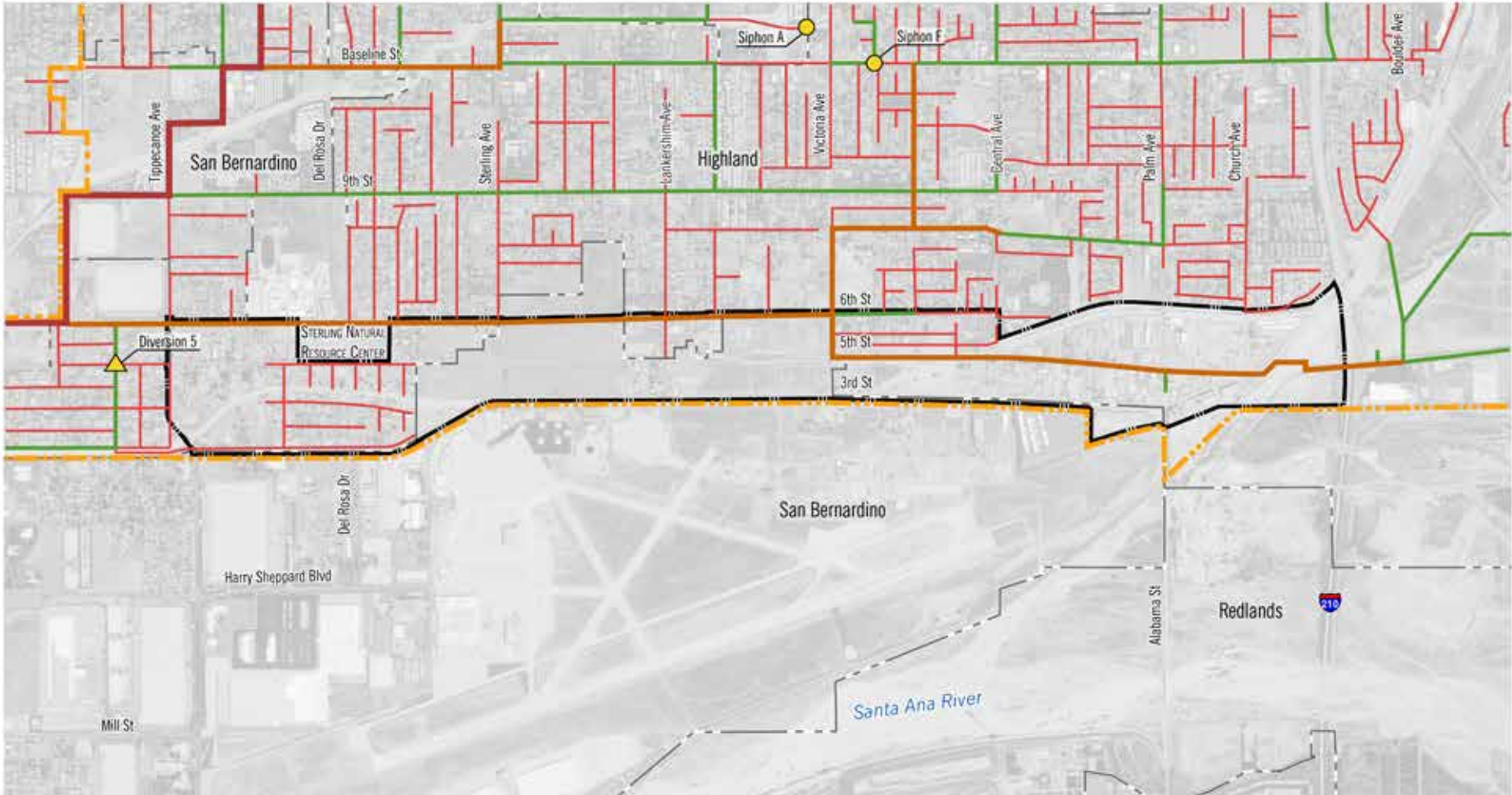
EVWD's Sewer System Master Plan (SSMP) was updated in early 2019. According to the SSMP, the objective of the update was to evaluate the collection system capacity and provide a general assessment of the condition of the existing wastewater collection system in order to develop a comprehensive 20-year Capital Improvement Program (CIP). The recommended CIP was the basis for wastewater rate evaluations and long-range financial plans to be completed in separate financial studies. The final recommendations of the SSMP are provided in Chapter 8 of the document. Total project costs for the WRP alternatives were compared to determine the recommended CIP, which includes both capacity- and condition-related capital projects and recommendations on further studies.

Within the Plan Area, the projects recommended to increase collection and distribution (not treatment) capacity (pursuant to the CIP) include:

- **Project E-1**, which is to upsize 5,900 linear feet of 27- to 48-inch pipeline with 36- to 54-inch pipeline, including a possible siphon upsize.
- **Project E-4**, which is to upsize 15,000 linear feet of 21- to 24-inch pipeline with 30-inch pipeline starting at Tippecanoe Street on 6th Street, which would traverse east to Victoria Street then south to 5th Street and finally east on 5th Street to Palm Avenue.
- **Project B-2**, which is to upsize 2,200 linear feet of 15-inch pipeline with 18-inch pipeline, including a possible siphon upsize.

Refer to Figure 7.3, *Recommended EVWD Wastewater Capacity Projects*, for the location and extent of these projects. Pursuant to the CIP, the recommended projects will help collect and distribute wastewater to the Sterling Natural Resource Center currently under construction near the western end of the Plan Area. The projects will be triggered based the amount of commercial/industrial development accommodated by the Specific Plan. The trigger will be tied to square footage

FIGURE 7.2. WASTEWATER INFRASTRUCTURE SYSTEM



Source: ESRI, 2016

Plan Area Boundary	EXISTING FACILITIES PIPELINE BY DIAMETER	Diversion Structure
City Boundaries	East Trunk Sewer 10 - 18 inches	Sewer Siphon
EVWD Service Area Boundary	> 18 inches < 10 inches	

or plumbing fixture count and what the proposed commercial/industrial project will entail (i.e. high or low water use). The final recommended projects and determination on the trigger point will be evaluated and determined by EVWD when projects are submitted for development review.

In addition to the recommended capacity projects shown in Figure 7.3, the existing wastewater infrastructure system shown in Figure 7.2, *Wastewater Infrastructure System*, will continue to serve the existing and future wastewater needs of the Plan Area.

New development in the Plan Area may require the replacement of existing or construction of new onsite wastewater pipelines on individual parcels to connect to EVWD's wastewater distribution pipelines. EVWD may charge project applicants/developers for connecting to the wastewater system or for any needed upgrade resulting from new development. Additionally, EVWD requires that localized system deficiencies that would be impacted by new development be corrected at the expense of the project applicant/developer. Further, as development occurs in the Plan Area, EVWD reviews existing feed lines to determine if there is a need for upgrading. If applicable,

any system improvements necessitated by new growth can be addressed through EVWD's CIP.

7.2.3 WASTEWATER STANDARDS AND REQUIREMENTS

The following standards and requirements apply to wastewater infrastructure.

- Individual development projects shall be required to adhere to the provisions of all EVWD ordinances regarding wastewater capacity allotment in EVWD's service area.
- Proposed wastewater infrastructure improvements shall be required to be designed, constructed and installed in accordance with applicable requirements of the City of Highland and/or City of San Bernardino Municipal Code's and their established engineering standards, and to the satisfaction of EVWD and/or the engineering divisions of both cities.
- Project applicants/developers shall pay any and all EVWD-established fees for connecting to the wastewater system or for any needed upgrades resulting from new development. Depending on the size and type of proposed development and anticipated wastewater flow, EVWD may impose a condition that the developer pays for all or a portion of the

cost of improving the link between the development site and the wastewater conveyance system.

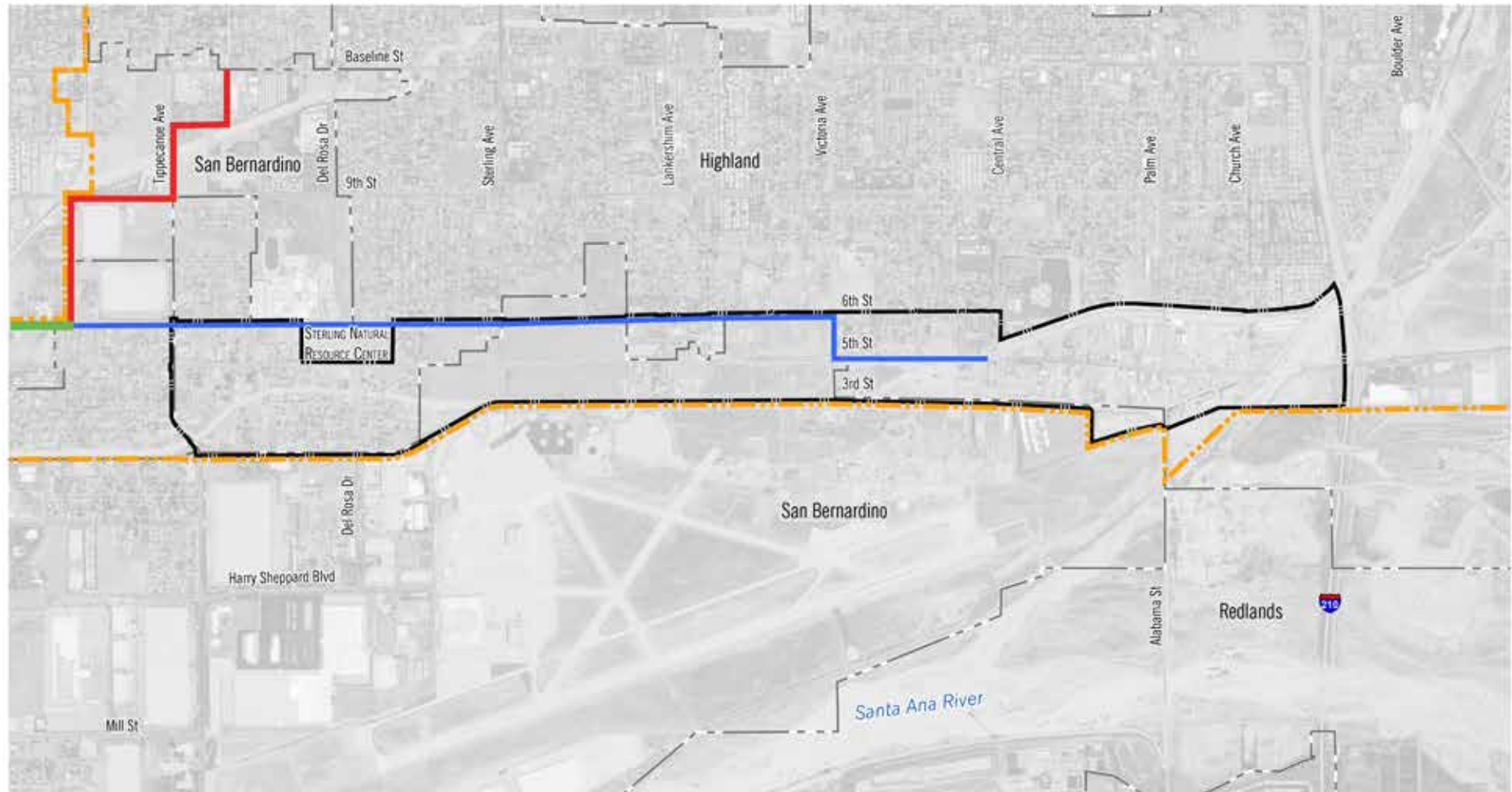
- Large water-use developments (e.g., manufacturing, bottling company) shall be required to submit monitored flow measurements to EVWD to determine and project future flow quantities.
- Pretreatment requirements for some industrial operations may be required.

7.3 Drainage Infrastructure System

7.3.1 EXISTING DRAINAGE SYSTEM

The existing drainage system in the Plan Area is fairly rudimentary. Figure 7.4, *Drainage Infrastructure System*, illustrates the overall watershed area tributary to the City Creek Bypass Channel, which includes the Plan Area; existing drainage systems, including storm drains that collect runoff; and proposed drainage system improvements identified by the San Bernardino County Flood Control District's (SBCFCD) Comprehensive Storm Drain Plan #6 (CSDP #6), including the City Creek Bypass Channel alignment. As shown in Figure 7.4, the City Creek Bypass Channel traverses the entire stretch of the Plan Area from east to west. The channel runs along 3rd and 5th Streets and extends from




FIGURE 7.3. RECOMMENDED EVWD WASTEWATER CAPACITY PROJECTS

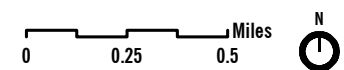


Source: ESRI, 2016

-  Plan Area Boundary
-  City Boundaries
-  EVWD Service Area Boundary

PROPOSED CAPACITY IMPROVEMENTS

-  Project E-1: Upsize to 36"-54" pipeline
-  Project E-2: Upsize to 30" pipeline
-  Project E-4: Upsize to 18" pipeline



Warm Creek Channel on the west (western terminus) to City Creek Channel (eastern terminus) just north of the Interstate 210 and 5th Street interchange. Storm water runoff in the Plan Area flows to the south over a very shallow grade. The existing storm drains in the Plan Area collect surface runoff and convey it to City Creek Bypass.

7.3.2 PROPOSED DRAINAGE SYSTEM

The Preliminary Hydrology and Channel Design for City Creek Bypass Channel study prepared by JLC Engineering & Consulting, Inc. for the Specific Plan concluded that downstream of the Victoria Avenue/City Creek Bypass Channel junction, the channel is insufficient to convey the 100-year flood flows in its current configuration. Based on the findings and recommendations of the study, a new channel design (two alternatives being proposed) is required in order to provide sufficient capacity to convey the 100-year flood flows between Victoria Avenue (just north of the airport and south of 3rd Street) and the City Creek Bypass Channel. Figure 7.5, *City Creek Bypass Channel Cross Section Alternatives*, illustrates two alternative channel cross section designs, which include a concrete-lined side with earthen bottom channel and a rip-rap lined side with earthen bottom

channel. The alternative channel designs are preliminary and have not yet been selected for implementation. For planning and impact forecast purposes, it is assumed that a maximum of one-half mile of new channel will be installed in any given year until the channel is fully improved in the Plan Area. Also, a Class I bike trail is not shown on Figure 7.5, but is being considered as illustrated on Figure 6.7.

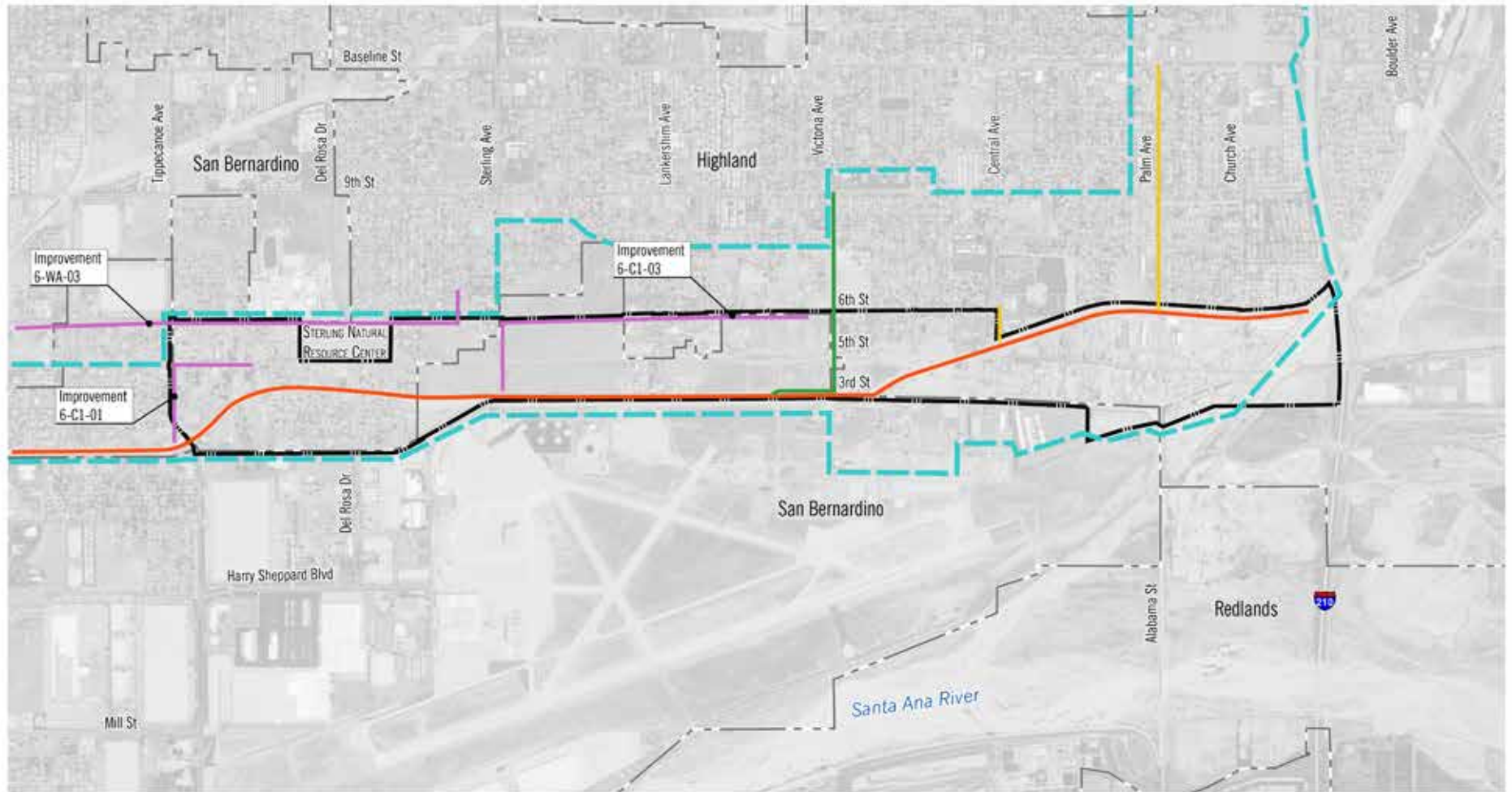
Since the area managed by SBCFCD (which includes the Plan Area) is extensive and many of the drainage issues are more localized, Master Plans of Drainage and/or CSDP's are created to evaluate the existing drainage systems, identify deficiencies, and recommend improvements and new facilities in an area. As shown in Figure 7.4, *Drainage Infrastructure System* various drainage improvements have been identified for the Plan Area based on the CSDP #6. The purpose of the drainage improvements is to provide flood protection for the Plan Area and to meet the street design standards of the cities of San Bernardino and Highland. The following CSDP #6 drainage system improvements are needed for the Plan Area (see Figure 7.4):

- Improvement 6-C1-01, which is a storm drain that varies in size from 36- to 48-inches in diameter. The storm drain extends along Tippecanoe Avenue and 5th Street.
- Improvement 6-C1-03, which is a storm drain that varies in size from 42- to 81-inches in diameter. The storm drain extends along Sterling Avenue and 6th Street.

Additionally and although not an improvement identified in the CSDP #6 (Improvement 6-WA-03), coordination between IVDA and the cities of Highland and San Bernardino has resulted in identification of the need for a new storm drain along Victoria Avenue (see Figure 7.4), which would serve the Plan Area and beyond. The storm drain system is currently under a Plan, Specification, and Estimate (PS&E) process with the City of Highland. The intent of the PS&E process is to develop a package that obtains CEQA clearance, design approvals and construction estimates to allow the drainage improvement to be constructed.

It should be noted that Improvement 6-WA-03, shown along 6th Street in Figure 7.4 is adjacent to the northerly Plan Area boundary and shown for context and informational purposes. Based on the topographic contours for the watershed

FIGURE 7.4. DRAINAGE INFRASTRUCTURE SYSTEM

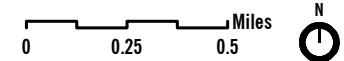


Source: ESRI, 2016

- Plan Area Boundary
- City Boundaries
- Watershed Boundary

PROPOSED AND EXISTING FACILITIES

- Existing Storm Drain
- Proposed Storm Drain (City of Highland)
- Comprehensive Storm Drain Plan #6 - Proposed Storm Drain
- Proposed City Creek Bypass - Channel Alignment



and/or City of San Bernardino Municipal Code's and their established engineering standards, and to the satisfaction of the San Bernardino County Flood Control District (when necessary) and/or engineering divisions of both cities.

- Drainage improvements for proposed development projects shall be evaluated on a project-by-project basis and will be conditioned at the time of entitlement.
- Wherever possible, the following design recommendations should be implemented to minimize and help reduce the negative effects of stormwater runoff, and facilitate groundwater recharge:
 - » Curb cuts should be created to allow stormwater flows to drain to permeable or landscaped areas.
 - » Stormwater planters should be placed along sidewalks to allow runoff to drain to the planters.
 - » Pervious paving materials should be used for driveways, walkways, plazas, and parking areas.
 - » The use of vegetated swales and similar design methodologies should be incorporated to convey runoff towards basins or other collection areas onsite.
 - » Rainwater should be collected onsite through the use of stormwater management practices such as the incorporation of infiltration basins and bioswales.

- » Bioswales, particularly those with native or drought-tolerant grasses, should be used to collect and filter runoff.
- » Planting areas within hardscape areas (e.g., parking lots) should be considered as opportunities to receive, convey, and treat runoff.

In addition to the above list of standards and requirements, individual development projects will be required to comply with the water quality standards (construction and operation) in place at the time of project submittal. For example, the Construction General Permit (CGP), Order No. 2012-0006-DWQ, National Pollution Discharge Elimination System (NPDES) Permit No. CAS000002, last updated by the State Water Resources Control Board in July 2012, regulates stormwater and non-stormwater discharges associated with construction activities. Specifically, the CGP requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for each construction project greater than or equal to one acre of disturbed soil area (regardless of the site's risk level). The SWPPP must list best management practices (BMPs) that the discharger (e.g., construction contractor) will use to control sediment and other pollutants in stormwater and non-stormwater runoff. Section XVI of the CGP describes the elements that must be contained in a SWPPP. Any proposed project

(new development or redevelopment) greater or equal to one acre will be subject to the CGP and SWPPP requirements.

For the operational phase of proposed projects (development or redevelopment), applicants/developers will be required to prepare a Water Quality Management Plan (WQMP) in compliance with the requirements of the cities of Highland and San Bernardino and County of San Bernardino NPDES Areawide Stormwater Program (NPDES No. CAS618036, ORDER No. R8-2010-0036), which requires the preparation of a WQMP. The WQMP provides a program for an effective combination of erosion and sediment control measures (i.e., including Low Impact Development [LID] BMPs) to reduce or eliminate long term discharge to surface water from stormwater and non-stormwater discharges. BMP features will ensure any increases in runoff from proposed land use changes are sustainably managed and that runoff will be adequately treated through a variety of BMP features.

The City of Highland and/or San Bernardino will condition each development project to submit grading plans and a SWPPP for the project's construction phase and a WQMP for the post-construction (operational) phase.

7.4 Utilities and Service Systems

7.4.1 SOLID WASTE AND RECYCLING

The City of San Bernardino and City of Highland both contract with Burrtec Waste Industries (Burrtec) for solid waste collection and disposal. The contract for both cities are responsible for the solid waste collection and disposal from all residential properties within the Plan Area and compete with private haulers for commercial collection services. Both cities also manage a curbside recycling program, which includes collection of paper and cardboard, cans/aluminum, plastic, and glass. The recyclable materials are taken to a number of recycling facilities that are contracted with the cities and unincorporated areas of San Bernardino County (County). Other recycling and waste reduction programs in these cities include but are not limited to bulky item pickups, Organics Recycling Program (SB 1383), and household hazardous waste collection.

Solid waste collection, processing, transportation and disposal or reuse is an important component of the Specific Plan's infrastructure system. The approach taken in the Specific Plan is to include it as a key component of the "green" or environmentally sustainable goals the Specific Plan seeks to achieve for the Plan Area. When it comes to solid waste, both

cities have been successful at diverting landfill waste through their effective and diligent management of the waste stream and through recycling efforts. For existing and new development within the Plan Area, the cities via the San Bernardino County Waste System Division will continue to put forth solid waste and recycling efforts to move toward minimizing waste sent to landfills and reducing solid waste disposed per capita, as identified in their respective action plans/ordinances. This includes expanding public outreach programs that focus on recycling and composting education, as well implementation of the "green" or environmentally sustainable goals of this Specific Plan.

SOLID WASTE AND RECYCLING STANDARDS AND REQUIREMENTS

The following standards and requirements apply to solid waste and recycling.

- Development projects in the City of Highland's jurisdiction shall comply with the provision of Chapter 8.12, Integrated Waste Management, of the City's Municipal Code.
- Development projects in the City of San Bernardino's jurisdiction shall comply with the provision of Chapter 8.24, Solid Waste

Collection, Removal, Disposal, Processing and Recycling, of the City's Municipal Code.

- Development projects shall adhere to the construction- and operational-related waste reduction and recycling provisions of the current California Green Building Standards Code (CALGreen).

7.4.2 ELECTRICITY

Electricity for all residences and businesses in the Plan Area is provided by Southern California Edison (SCE). SCE has a number of above- and underground electrical infrastructure in the Plan Area, including power poles, transmission lines, and junction boxes. SCE expects that its existing electrical facilities and infrastructure (e.g., power plants, substations, transmission lines) are capable of supplying 100 percent of the Plan Area's electricity needs now and at buildout of the Specific Plan.

Electrical services throughout the Plan Area will be provided through the existing backbone system. Electrical utilities are generally constructed in a common trench within the street right-of-way or an adjacent easement. The final layout and design of individual development sites in the Plan Area will need to accommodate the necessary electrical utilities as well as ancillary features such as junction boxes, transformers, etc.

Additionally, development projects shall adhere to the energy efficiency provisions of the most current California Green Building Standards Code (CALGreen).

7.4.3 NATURAL GAS

Natural gas for all residences and businesses in the Plan Area is provided by the Southern California Gas Company (SoCalGas). SoCalGas has a number of underground pipelines in the Plan Area, specifically in 3rd Street, 4th Street, 5th Street and 6th Street. The pipelines range in size from two to eight inches. SoCalGas expects that its existing natural gas infrastructure is capable of supplying 100 percent of the Plan Area's natural gas needs now and at buildout of the Specific Plan.

Natural gas services throughout the Plan Area will be provided through the existing backbone system. Natural gas utilities are generally constructed in a common trench within the street right-of-way or an adjacent easement. The final layout and design of individual development sites in the Plan Area will need to accommodate the necessary natural gas utilities, which would occur at the time of entitlement of each development project.

7.4.4 COMMUNICATION SERVICES

Cable TV, telephone and internet services are provided to all residences and businesses in the Plan Area by AT&T, Frontier, Spectrum Charter and Terradex. AT&T has aboveground utilities (via cables) and underground utilities within conduits along 3rd Street, 5th Street and 6th Street. Time Warner has above- and underground utilities in 5th and 6th Street. Frontier and Terradex have no above- or underground utilities in the Plan Area. All communication service providers expect that their existing and future infrastructure is capable of supplying 100 percent of the Plan Area's communication needs now and at buildout of the Specific Plan.

As new development occurs in the Plan Area, communication providers may be required to upgrade their infrastructure to provide new cable connections, node locations, and service supplies. The final layout and design of individual development sites in the Plan Area will need to accommodate the necessary communication utilities, which would occur at the time of entitlement of each development project.

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CHAPTER 8.0

**ADMINISTRATION,
IMPLEMENTATION
& FINANCING**

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CHAPTER 8.0 ADMINISTRATION, IMPLEMENTATION & FINANCING

8.1 Purpose

This chapter provides details for administration, implementation and financing options for the AGSP. Implementation of the Plan and changes to the area are intended to occur incrementally.

8.1.1 SPECIFIC PLAN AUTHORITY

The State of California grants authority to cities and counties to adopt specific plans for the purposes of implementing the goals and policies of their general plans through Government Code § 65450. In the City of Highland, Chapter 16.60, *Specific Plans*, of the Municipal Code establishes the purpose and procedures for adoption of Specific Plans. In the City of San Bernardino, Chapter 19.64, *Specific Plans*, of the Development Code establishes the purpose and process for preparing Specific Plans. Under state law Specific Plans are required to include text and diagrams which discuss the following:

1. The distribution, location, and extent of the uses of land within the area covered by the plan
2. The proposed distribution, location, extent, and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described
3. Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable
4. A program of implementation measures including regulations, programs, public works projects, and financing mechanisms necessary to carry out the preceding three items
5. A statement of the AGSP's relationship to the General Plan

This document establishes the necessary plans, development standards, regulations, infrastructure requirements, design guidelines, and implementation programs upon which subsequent project-related development activities will be based. It is intended that public and private projects,

design review plans, detailed site plans, grading and building permits, or any other action requiring ministerial or discretionary approval applicable to this area be consistent with this Specific Plan.

In addition to Highland and San Bernardino, it should also be noted that the EVWD is the agency responsible for water and sewer in much of the AGSP area.

8.2 Specific Plan Adoption

This Specific Plan was adopted by ordinance XX by the City of Highland and ordinance XX by the City of San Bernardino. This Specific Plan is the regulatory document guiding land use and development within the identified boundaries; it serves as the zoning for the Plan Area. Upon adoption, "Airport Gateway Specific Plan" will become the zoning designation for the Plan Area.

8.2.1 RELATIONSHIP TO THE GENERAL PLAN

All provisions of this Specific Plan will be consistent with the General Plans for the City of Highland and City of San Bernardino after each city adopts related General Plan amendments.

DEFINITIONS:

- » “Director” refers to the Community Development Director in the City of Highland or the Development Services Director in the City of San Bernardino.
- » “Responsible Jurisdiction(s)” refers to either or both jurisdictional bodies, City of San Bernardino and City of Highland, with authority to administer this Specific Plan.
- » “Partner Agency(ies)” refers to other stakeholders with oversight or interest in specific activities of this Plan. Agencies include: the IVDA, East Valley Water District, and San Manuel Band of Mission Indians.
- » HMC refers to the City of Highland Municipal Code.
- » SBMC refers to the City of San Bernardino Municipal Code.

8.2.2 ENVIRONMENTAL CLEARANCE

The AGSP was adopted in compliance with the requirements of the California Environmental Quality Act (CEQA) (California Public Resources Code, §§ 21000 et seq.). IVDA was the lead agency for environmental clearance of this Specific Plan. Pursuant to the CEQA Guidelines (Title 14, California Code of Regulations, Chapter 3, §§ 15000 et seq.), the IVDA, prepared a Notice of Preparation and made these documents available to responsible agencies, trustee agencies, and interested parties for a 30-day public review period, which extended from XX, XX, 201X through XX XX, 2022. Through this process, it was determined that implementation of the Specific Plan could result in potentially significant environmental impacts and that the preparation of a Program Environmental Impact Report (PEIR) was required.

The environmental documentation for the AGSP is a PEIR (State Clearinghouse No. XXXXXXXX). A PEIR allows the participating agencies to consider broad policy alternatives and program-wide mitigation measures. It also provides greater flexibility to address project-specific and cumulative environmental impacts for subsequent individual site submittals.

Agencies with jurisdictional authority typically prepare PEIRs for programs or series of related action that are linked geographically; are logical parts of a chain of contemplated events, rules, regulations, or plans that govern the conduct of a continuing program; or are individual activities carried out under the same authority and having generally similar environmental effects that can be mitigated in similar ways.

EIR TIERING

The PEIR prepared for the AGSP meets the requirements of § 15168 of the CEQA Guidelines, and subsequent projects that are within the scope of this EIR may be subject to a more limited environmental review process, as guided by the provisions of CEQA § 15162. This approach is consistent with the tiering provision in California Public Resources Code § 21083.3 and CEQA Guidelines § 15183 for “Projects consistent with a Community Plan, General Plan or Zoning.” This tiering opportunity is only available for plans (e.g., specific plan) for which an EIR has been prepared.

Tiering under these provisions will require environmental review and documentation to substantiate that a subsequent project does not result in any new potentially significant impacts. Such review (under § 21083.3 and

§ 15083) could be documented in the form of an initial study to ensure topic-by-topic review and substantiation. Once consistency has been substantiated and review shows that the project would not result in new significant impacts, neither a mitigated negative declaration nor an EIR would be required.

8.3 Review Authority

The following sections outline the administrative processes and procedures of this Specific Plan in coordination with the cities of San Bernardino and Highland (Responsible Jurisdictions). These regulatory processes include, but are not limited to, map compliance, use permits, interpretations, and modifications. The following processes and procedures are subject Chapter 16.08, *Permits and Approvals*, of the HMC or Chapter 19, Article IV, *Administration*, of the SBMC.

The cities of Highland and San Bernardino are responsible for the overall administration and enforcement of this Specific Plan, including: administering the application process, interpreting provisions, and approving adjustments or modifications of the Plan. Throughout this chapter these cities are referred to as "Responsible Jurisdictions."

All projects within the City of Highland will be processed by the City of Highland, and all projects within City of San Bernardino will be processed by the City of San Bernardino. See Figure 8.1, *City Boundaries*, to determine which jurisdiction regulates a particular property.

The procedures used to process permit applications shall be consistent with the City of San Bernardino Development Code, Chapter 19.31, *Administration*, and the City of Highland Municipal Code Chapter 16.08, *Permits and Approvals*, except as specified by this Specific Plan. See Section 8.6, *Project Review and Approval Process*, for details regarding the review and approval process.

8.4 Enforcement

The cities of Highland and San Bernardino shall enforce the provision for the Specific Plan in the same manner that they enforce the provisions of their respective general plans and municipal codes.

Local public works projects, design, review plans, detailed site plans, grading and building permits, or any other action requiring ministerial or discretionary approval applicable to this area shall be consistent with this Specific Plan.

If the AGSP is silent regarding any development standard or process, the provisions identified in the City of Highland Municipal Code (HMC) or the City of San Bernardino Municipal Code (SBMC) shall prevail.

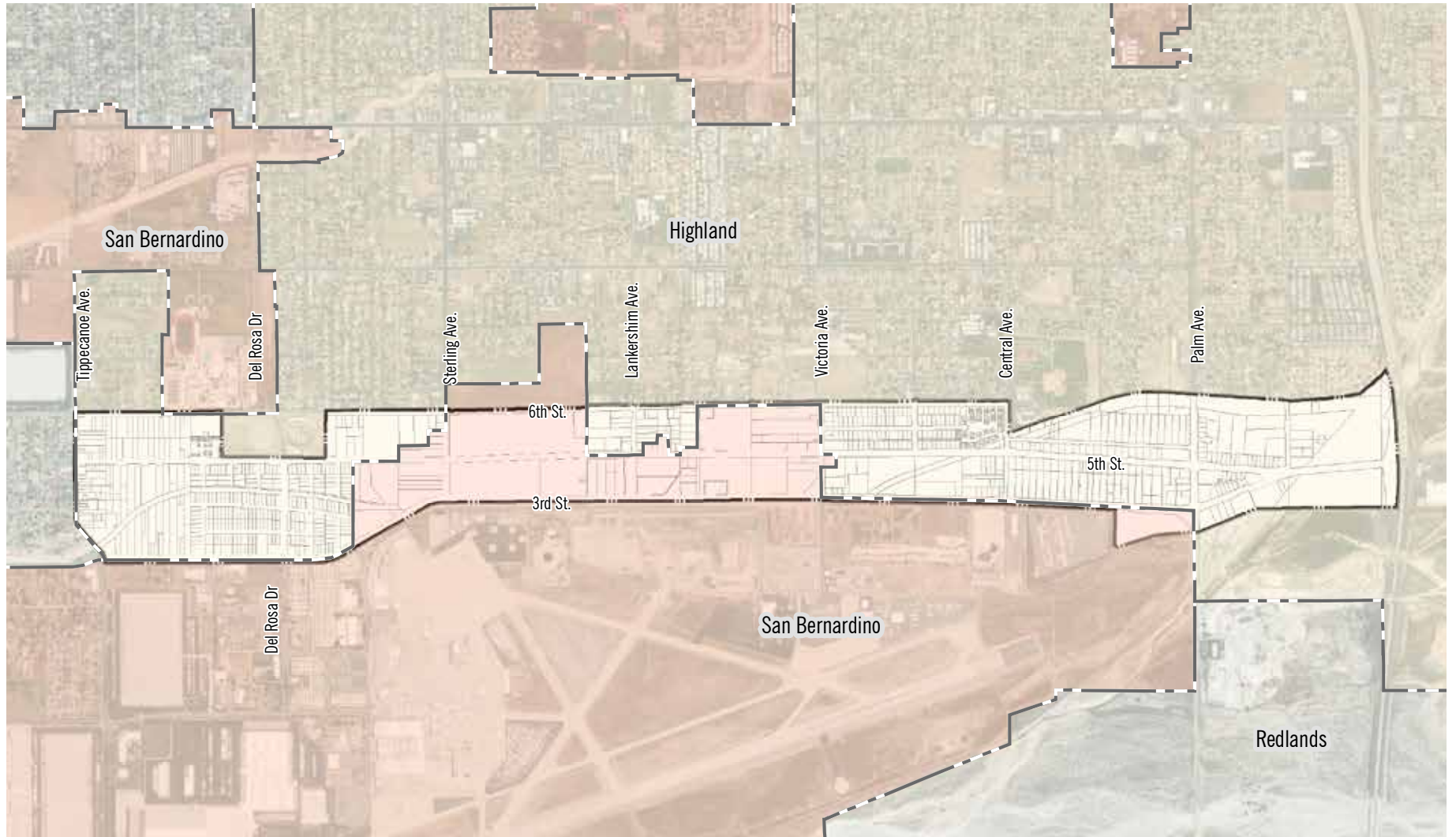
8.5 Severability

In case of uncertainty or ambiguity to the meaning or intent of any provision of this Specific Plan, the Director of the Responsible Jurisdiction has the authority to interpret the intent of the provision. In such cases the most appropriate or closely matching code section and land use type or procedure will be determined by the Director.

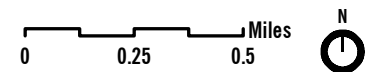
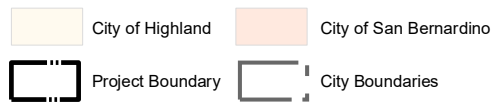
The Director may, at his/her discretion, refer interpretations to the Planning Commission for consideration and action. Such a referral shall be accompanied by a written analysis of issues related to the interpretation. All interpretations made by the Director may be appealed to the Planning Commission in accordance with the appeal procedures of the City of Highland or City of San Bernardino as identified in the Municipal Code or Development Code, respectively. Participating agencies and parties shall be notified in writing of final interpretations.

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FIGURE 8.1 CITY BOUNDARIES



Source: County of San Bernardino, 2015



8.6 Project Review and Approval Process

As identified in Chapter 4, *Land Use and Standards*, projects within the Plan Area are subject to review and approval using the procedures provided in this section. As identified in Chapter 4, Table 4.2, *Permitted Uses*, uses with a “P” require staff/department review subject to the processes outlined in Section 8.6.2, *Staff/Department Review*, and projects identified with a “C” are subject to the processes outlined in Section 8.6.3, *Conditional Use Permits*. Additionally, some projects may require a temporary use permit or design review as described in Sections 8.6.4 and 8.6.5. Projects must also demonstrate consistency with findings in Section 8.6.6, *Required Findings*.

8.6.1 PRE-APPLICATION CONFERENCE

A prospective applicant or agent shall request a pre-application conference with the applicable Responsible Jurisdiction prior to formal submittal of a land use permit application. This conference should take place prior to any substantial investment (i.e. land acquisition, site, engineering and construction plans) in the preparation of the proposed development application. During the conference, the review authority representative(s) shall

inform the applicant of applicable policies, plans, and requirements as they apply to the proposed development project, review the appropriate procedures outlined in this Specific Plan, and examine possible alternatives or modifications relating to the proposed project.

8.6.2 STAFF/DEPARTMENT REVIEW

All proposed projects in the Plan Area with permitted uses identified by a P in Table 4.2, *Permitted Uses*, within Chapter 4, *Land Use and Standards* are subject to the Development Permit Review process in City of San Bernardino and/or the staff review process in the City of Highland.

CITY OF HIGHLAND

Any new structure, site improvement, or building modification in the Plan Area under the jurisdictional authority of the City of Highland shall be subject to staff permit review by the Project Review Committee (16.04.120, *Project Review Committee*). The Department Review Permit (16.08.060, *Staff Review Permits*) is intended to control the establishment and operation of new and existing development in commercial, employment, and multi-family zones to meet the vision and objectives of the Specific Plan. All permits shall receive final

approval from the Community Development Director. Applications can be appealed to the Planning Commission.

CITY OF SAN BERNARDINO

Any new structure, site improvement, or building modification in the Plan Area under the jurisdictional authority of the City of San Bernardino shall be subject to Development Permit Review by the Development/Environmental Review Committee (D/ERC), as set forth in Section 19.44.030, *Applicability and Project Review*, of the SBMC. The Development Permit is for all new non-residential uses or structures, which are uses included in the Plan. All permits shall receive final approval from the D/ERC. Applications can be appealed to the Planning Commission.

8.6.3 CONDITIONAL USE PERMITS

A conditional use permit (CUP) is intended to control the establishment of those uses which have some special impact or uniqueness, such that their effect on the surrounding environment cannot be determined in advance of the use being proposed for a particular location. A CUP may also establish limitation under which a use may operate. Uses requiring approval through a CUP are noted in Table 4.2, *Permitted Uses*, within Chapter 4, *Land Use and Standards*.

Approval of a CUP is based on an analysis of a proposed project's consistency with the applicable General Plan, consistency with the intended provisions of this Specific Plan, compatibility with surrounding land uses, adequacy of public facilities and services, and potential environmental impacts.

Review authority, findings, and other requirements related to each participating jurisdiction are specified by each cities municipal code as noted below.

CITY OF HIGHLAND

Authority for approval of conditional use permits shall be vested in the Planing Commission for the City of Highland consistent with Title 16, Section 16.08.050, *Conditional Use Permits*.

CITY OF SAN BERNARDINO

Authority for approval of conditional use permits shall be vested in the Planning Commission for the City of San Bernardino consistent with Chapter 19, Section 19.36, *Conditional Use Permits and Minor Use Permits*.

A minor use permit application may be used in-lieu of an application for a conditional use permit if it meets the following criteria:

- » The use will be entirely located within a structure that has previously been approved with a Development Permit or Conditional Use Permit;
- » The use will be less than 10,000 square feet in gross floor area;
- » The use will be exempt from the provisions of CEQA.

Minor use permit applications shall be reviewed and approved by the City's Design Review Committee.

Applications requiring discretionary approval by the City of San Bernardino or the City of Highland, require that the Responsible Jurisdiction notify the Partner Agencies (including the San Manuel Band of Mission Indians, East Valley Water District, etc.) of the project submittal. The Responsible Jurisdiction must then keep the others apprised of the application and approval process, providing all agencies the opportunity to comment on the project.

8.6.4 TEMPORARY USE PERMITS

Temporary use permits identified in Table 4-2, *Permitted Uses*, of this Specific Plan shall be subject to Section 16.08.130, *Special event permits*, of the HMC and Chapter 19.70, *Temporary Use Permits*, of the SBMC.

8.6.5 DESIGN REVIEW

Design review is intended to ensure that new development does not have an adverse aesthetic, health, safety or architecturally related impact upon existing development and adjoining properties within the Plan Area and for each participating agency. A review committee for each Responsible Jurisdiction shall have the authority to review proposed projects for compliance with the development standards and design guidelines of this Specific Plan.

CITY OF HIGHLAND

All applications for new commercial, industrial, and institutional uses involving the issuance of a building permit for construction or reconstruction of a structure require design review consistent with Section 16.08.090, *Design Review*, of the City of Highland Municipal Code.

CITY OF SAN BERNARDINO

Consistent with Chapter 19, Section 19.38, *Design Review*, of the City of San Bernardino Municipal Code development projects within the Plan Aea shall be subject to design review.

DESIGN REVIEW PROVISIONS SPECIFIC TO THE PLAN AREA

The following shall be subject to design review by the applicable Responsible Jurisdiction:

- » New structure(s)/development and related site plans.
- » Remodeled/reconstructed structure(s)/development and related site plans, including changes to the building façade.
- » A project involving a change or intensification of land use.
- » New or modified signs with review authority other than the Director.
- » Outdoor storage areas.
- » Landscaping plans.
- » Major public works projects, as feasible.

See Section, 8.6.6, *Required Findings*, for specific findings related to design review.

8.6.6 REQUIRED FINDINGS

Applications for new projects within the Plan Aea may be approved or conditionally approved as described in sections 8.6.2 and 8.6.3 if it is determined that the project meets the following:

- » That the proposed project is consistent with this Specific Plan.
- » The project demonstrates compliance with the concepts outlined in the six Objectives of the Plan as well as the AGSP Vision (Chapter 2, *Vision and Objectives*). The Objectives are provided in the call out box on this page.
- » Proposes a cohesive, complementary use or mix of uses structured around a comprehensive set of circulation and infrastructure systems.
- » Creates a successful development that maximizes the economic development potential of the AGSP.
- » Positively contributes to creating a mix of industrial, logistics, distribution, business technology oriented, or commercial uses that will increase revenues to either the City of Highland or the City of San Bernardino.
- » Applies innovative planning and design solutions to create a sense of place at multiple scales.

- » Facilitates lot consolidation and redevelopment along the corridor to prevent piecemeal development and increase property values and foster cohesive development to compliment the nearby airport.
- » Establishes a gateway characterized by cohesive signage, architecture, and landscaping, both in the public right-of-way and on private property.
- » Orients development, business activities (access, loading/unloading areas, etc.) and vehicular traffic along 3rd Street and 5th Street, away from residences adjacent to 6th Street.
- » Meets minimum Mixed-Use Business Park development standards and guidelines established for various uses in the area (Chapters 4 and 5 of the Specific Plan).
- » Does not exceed maximum Mixed-Use Business Park development standards and guidelines established for various uses in the area(Chapters 4 and 5 of the Specific Plan).
- » Promotes the development of the Plan Area as an attractive employment center and a gateway to the San Bernardino International Airport.

FINDINGS RELATED TO DESIGN REVIEW

The following shall be used to determine that the project adequately meets the requirements of the applicable city and this Specific Plan:

- » That the design of the proposed project would provide a desirable environment for its occupants and visiting public as well as its neighbors consistent with Chapter 5, *Design Guidelines*, of this Specific Plan.
- » That the design and layout of the proposed project will not unreasonably interfere with the use and enjoyment of neighboring existing or future development, and will not result in vehicular and/or pedestrian hazards.
- » That the proposed project, together with any applicable conditions, will not be detrimental to the public health, safety, or welfare or will not be materially injurious to properties or improvements in the vicinity of the site.

AGSP OBJECTIVES:

1. Attracts innovative and job-generating businesses
2. Provides comprehensive infrastructure improvements for water, sewer, and stormwater
3. Creates a memorable visitor experience and unified sense of identity by enhancing gateways, corridors, and buildings with landmark design elements
4. Implements roadway design and improvements that are consistent with the area, including landscape and monumentation across jurisdictional boundaries
5. Efficiently connects new industrial, office, and existing distribution uses to freeway access while providing safe spaces for pedestrians, cyclists, transit, and motor vehicles
6. Collaborates with agencies and property owners on a regular basis to initiate new businesses, drive innovative development, and develop joint solutions to issues that arise within the Plan Area

8.7 Interpretations

The Director of the applicable Responsible Jurisdiction or their designee has the authority to interpret the Specific Plan if ambiguity arises concerning the meaning or appropriate application of the requirements or intent of this Specific Plan. When interpreting the ambiguity, the Director or designee shall consider the following factors:

- » Is the case similar to previous interpretations of similar provisions?
- » Does the interpretation respond satisfactorily to the vision, intent, and purpose of the Specific Plan?
- » Is the resulting project consistent with the General Plan?
- » Does the decision constitute sound precedent for other similar situations?

8.8 Project Appeals

An appeal of any determination, decision, or requirement of the Director or the Planning Commission shall comply with the procedures established by Chapter 16.08.210, *Appeals*, of the City of the HMC or Chapter 19.52, *Hearings and Appeals*, of the SBMC. All appeals shall be submitted to the applicable jurisdiction, using the appropriate forms and may require a fee.

A written appeal shall specifically state the provision of the Specific Plan in question and provide any information to assist in the review of the appeal. Consistent with the HMC and SBMC references above, decisions of the applicable committee/Director may be appealed to the Planning Commission. Decisions of the Planning Commission may be appealed to the City Council.

8.9 Modifications and Amendments

Changes to the Specific Plan shall be classified by the Director of the applicable Responsible Jurisdiction or their designee as either a minor modification or an amendment. The applicant shall submit a detailed justification explaining why such a revision is warranted and any exhibits deemed necessary by the Director or their designee.

8.9.1 SUBSTANTIAL CONFORMANCE

Approval of this Specific Plan indicated acceptance by the Responsible Jurisdictions of a general framework for development and zoning regulations for the Plan Aea. It is anticipated that certain modifications to the Specific Plan text, exhibits, and other contents of this document may be necessary over the lifetime of the Plan. Any modifications to the AGSP shall occur

in accordance with the Specific Plan amendment process. These modifications, should they occur, are divided into two categories: Minor Modifications and Major Modifications/Specific Plan Amendments. Through a staff/department review permit or conditional use permit, see sections 8.6.2 and 8.6.3 respectively, a project may be found to be in substantial conformance with the provisions of this Specific Plan and may be approved, conditionally approved or denied by the applicable approval body of the Responsible Jurisdiction.

8.9.2 MINOR MODIFICATIONS

A “Minor Modification” refers to modifications that do not require a Specific Plan amendment. Minor modifications may be warranted to accommodate changes resulting from final design and engineering projects that cause adjustments in: roadway alignments; locations of utilities or other infrastructure; development of innovative product design; distribution of permitted uses within the Specific Plan; application of design guidelines; or other similar modifications deemed to be minor and which implement the provisions of the Plan. Minor modifications or technical adjustments may include, but are not limited to:

- » Addition of information to the Specific Plan (including maps or text) for purposes of clarification that does not change the intent of any plan or regulation, as well as correction of any clerical or grammatical errors.
 - » Modifications necessary to comply with final conditions of approval or mitigation measures.
 - » Adjustments to the alignment, location, and sizing of utilities and facilities or a change in utility and/or public service provider may be approved by the City of Highland or City of San Bernardino Engineering or Public Works Department, as applicable, so long as the adjustments or changes are found to be in compliance with applicable plans and standards of the agency responsible for such utilities and facilities.
 - » Changes in roadway alignment, width, or improvements through the final engineering/improvement plan process so long as minimum rights-of-way meet the standards outlined in the Specific Plan.
 - » Minor changes to the design guidelines, which are intended to be conceptual in nature and flexible in implementation.
- » Modification of any design element in this Specific Plan that improves circulation, reduces grading, improves drainage, improves infrastructure, or provides similar utility and reduces operations and maintenance costs.
 - » Specific modifications of a similar nature to those listed above, which are deemed minor by the Director of the Responsible Jurisdiction, which are in keeping with the intent of the Specific Plan and which are in conformance with the applicable General Plan.
 - » Updates to Table 8.1, *Implementation Action Program*, are considered a minor modification and should be tracked and shared between the Responsible Jurisdictions, to track implementation of this Specific Plan.

The minor modifications described in this section are not comprehensive. Any proposed minor modifications must demonstrate conformance with the purpose and intent of the Specific Plan.

The application for and documentation of a minor modification shall include text and/or maps that describe the nature of all proposed modifications or adjustments to the Specific Plan. This application shall undergo any necessary technical review by applicable Responsible Jurisdiction

departments and the Director or their designee. The Director or their designee may also update the conditions of project approval. A request for a minor modification shall be subject to all associated fees.

8.9.3 MAJOR MODIFICATIONS/ SPECIFIC PLAN AMENDMENTS

Major modifications constitute increases in intensity, increases in height, reduction in setback or changes of use in a manner that is inconsistent with the intent of the Specific Plan. Major modifications require a Specific Plan Amendment.

Amendments to the Airport Gateway Specific Plan may be requested by an applicant or by one of the Responsible Jurisdictions at any time, pursuant to and subject to the provisions of Government Code § 65453(a). In the event the proposed amendment requires a supplemental environmental analysis pursuant to CEQA, the entity requesting the amendment shall be responsible for all costs associated with preparing the necessary CEQA documentation.

In addition to costs related to preparation of the required CEQA analysis, a Specific Plan Amendment shall be subject to all associated fees which may be requested from the City of Highland and the City of San Bernardino, dependent upon the jurisdiction

where a subject property is located. All Plan amendments must be reviewed and approved by the applicable approval bodies of both Responsible Jurisdictions and the IVDA.

8.10 Non-Conforming Uses

Existing uses that do not comply with the provisions of the Specific Plan will be considered non-conforming (e.g. residential). To contribute to the objectives of the Specific Plan, the conditions and period under which non-conforming uses may continue is defined by each Responsible Jurisdiction. The continuation, modification, addition, or alteration of non-conforming uses must be consistent with the Specific Plan as well as those of each city (HMC Section 16.08.150, *Nonconforming parcels, uses and structures*; SBMC Chapter 19.62, *Non-conforming Structures and Uses*).

8.11 Specific Plan Environmental Impact Report and Mitigation Monitoring

Pursuant to Public Resources Code § 21081.6, a summary of the conditions of project approval shall be prepared to mitigate or avoid significant effects on the environment. The Program Environmental Impact Report (EIR) for the AGSP includes a Mitigation Monitoring and Reporting Program.

Section 8.2.2, *Environmental Clearance*, also discusses the CEQA documentation and tiering associated with the EIR that was completed for this Specific Plan. Projects must implement applicable implementation items, Table 8.1, *Implementation Action Program*, in addition to conditions of approval.

8.12 Implementation Program

The following Implementation Actions Program (Table 8.1) lists the specific actions or strategies that should be taken by the Responsible Jurisdictions, in coordination with local businesses, future developers, and other agencies where appropriate. Programs and policies for some of these items are already in place, and are recommended to be continued within the Plan Area. The table is organized by the following topic areas:

- » General Implementation
- » Economic Development Actions and Strategies
- » Circulation and Streetscape Actions
- » Infrastructure Actions

For each action there is a recommended timeframe for completion, the responsible party, and potential funding source(s). The timeframes are identified as follows:

- » Short (6 month to 12 months)

- » Medium (1 to 2 years)
- » Long (2 years +)
- » Ongoing

Actual implementation will be dependent on development activity, funding availability, and staff resources. The Implementation Action Program will be used by the Responsible Jurisdictions and referenced by the IVDA and other partner agencies throughout the life of the AGSP to track progress of each item and its implementation by the applicable Responsible Jurisdiction or agency.

8.13 Financing and Funding Mechanisms

This section identifies funding and financing mechanisms for public right-of-way improvements, public/private partnership opportunities, and other fees that could be used to pay for implementation of this Plan. In addition to funding sources identified in Table 8.1, *Implementation Action Program*, there are a number of grant, loan, and other financing tools that could be utilized to complete and maintain several of the implementation actions of this Plan.

TABLE 8.1 IMPLEMENTATION ACTION PROGRAM

SPECIFIC ACTIONS	TIMEFRAME	RESPONSIBLE PARTY	POTENTIAL FUNDING SOURCES
GENERAL IMPLEMENTATION			
<p>General Plan Amendment. In order for the AGSP to be implemented in the cities of Highland and San Bernardino, it may be necessary to amend their General Plans for consistency. Amendments include map updates as well as adjustments to land use designation descriptions. General Plan amendments may include revisions to the Land Use and Circulation elements.</p>	Short	City of Highland and City of San Bernardino	Each City- General Fund
<p>Specific Plan Tracking. Create an AGSP process and tracking form to be used between the Responsible Jurisdictions and participating agencies. The form should be used to notify all parties of project approvals, minor and major modifications, and interpretations made by either of the Responsible Jurisdictions.</p>	Ongoing	City of Highland and City of San Bernardino	Each City- General Fund
ECONOMIC DEVELOPMENT ACTIONS AND STRATEGIES			
<p>Nexus Study for Fees. Prepare a development impact fee nexus study and adopt an impact fee ordinance specific to the Plan Area to assess the costs of public improvements to new development through impact fees, the Responsible Jurisdictions must conduct a nexus study to determine the proportion of improvements costs attributable to new development and then adopt an ordinance establishing the fees. This study must be done in consideration of both cities so that the same fee is applied for any property in the Plan Area, including the fees to implement the Comprehensive Storm Drain Plan (CSDP) Master Drainage Plan. Circulation system fees should be determined following Circulation Element update. This study should also help to determine if and when improvements will be made and how the Responsible Jurisdictions can pay for the upfront costs, and how and when they will be repaid through the collection of impact fees.</p>	Short	City of Highland & City of San Bernardino	Each City- General Fund

TABLE 8.1 IMPLEMENTATION ACTION PROGRAM

SPECIFIC ACTIONS	TIMEFRAME	RESPONSIBLE PARTY	POTENTIAL FUNDING SOURCES
ECONOMIC DEVELOPMENT ACTIONS AND STRATEGIES (CONTINUED)			
<p>Landscaping, Lighting and Street Tree Master Plan. The Responsible Jurisdictions (in partnership with the IVDA) shall prepare a streetscape plan, covering street lighting, pedestrian lighting, street furniture, and landscaping. The plan shall indicate the improvements that are required as a condition of approval for new development, which improvements may be provided through a contractual assessment district, and which the Responsible Jurisdictions may construct or install on their own.</p> <p>All projects proposed between Tippecanoe and Palm Avenues must submit a lighting plan to the Airport to review for potential impacts to airport operations.</p>	Medium	City of Highland & City of San Bernardino	BID, CFD, Landscape and Lighting District, Grants, General Fund
<p>Sign/Gateway Master Plan. The Responsible Jurisdictions (in partnership with the IVDA) shall prepare a sign/gateway plan, covering gateway, wayfinding, and other sign opportunities to create an identity for the Plan Area. The plan shall indicate how the sign master plan will be funded and implemented.</p>	Medium		BID, CFD, Landscape and Lighting District, Grants, General Fund
<p>Create a Contractual Assessment District(s). The Responsible Jurisdictions should work with area businesses to create a contractual assessment district(s) with suitable escalators where appropriate within the Plan Area. See Section 8.13, <i>Funding and Financing Mechanisms</i>, for more information on property-based financing tools.</p>	Short	City of Highland & City of San Bernardino	Grants, General Fund
FORTHCOMING: INFRASTRUCTURE ACTIONS			
<p>Identify Locations for Truck Parking. Identify truck parking areas to support future development and industrial businesses in the SP Area. Such areas will be located away from residential areas to the extent feasible.</p>	Medium	IVDA, City of Highland & City of San Bernardino	BID, CFD, General Fund

8.13.1 DIRECT DEVELOPER CONSTRUCTION

In most instances, similar to the Alliance-California project, required infrastructure will be installed at the developer's expense. As an alternative, the developer may enter into a reimbursement agreement with a Responsible Jurisdiction if the costs incurred are those that would otherwise have been handled by the city or a future development within the Plan Area. For the purpose of this section, EVWD is considered a Responsible Jurisdiction.

8.13.2 DEVELOPMENT IMPACT FEES

The cities of San Bernardino and Highland each have a set of development fees in place that address a variety of infrastructure needs associated with new or the expansion of existing development. All new construction within the Plan Area will be subject to these fees at the time of building permit issuance. Since state law requires a nexus between the fee collected and the improvements constructed, it is presumed that these monies will be utilized for various infrastructure improvements that will benefit the Plan Area.

8.13.3 DEVELOPMENT AGREEMENTS

Structured negotiations between cities and developers can be conducted to obtain desired improvements in exchange for development rights. The extent to which a new project can contribute to the provision of infrastructure depends on a number of factors, including the anticipated project revenues, construction costs, project size, site characteristics, and other factors. Therefore, the amount of public benefits that can be provided is unpredictable and must be negotiated on a case-by-case basis and in coordination with a Responsible Jurisdiction.

8.13.4 PROPERTY-BASED FINANCING TOOLS

In California, common property-based funding and financing tools include the formation of business improvement districts, benefit assessment districts, and community facilities districts (CFDs). Assessment tools and CFDs leverage the value of new real estate development to capture additional tax revenues to finance infrastructure. The assessments can either be used to pay for improvements over time as the funds are collected, or can be bonded to make larger, up-front investments. One of the advantages of these property-based tools is that they can be applied toward district-

wide improvements and are designed to ensure that properties benefiting from improvements also contribute to those public investments.

BUSINESS IMPROVEMENT DISTRICT (BID) OR A PROPERTY BASED IMPROVEMENT DISTRICT (PBID)

A BID or PBID essentially creates an economic development organization accountable to its members and with its own funding stream to improve business performance by addressing local needs. Business owners (BID) or property owners (PBID) agree to provide funding for specific services within a defined district (e.g. Plan Area). Funding could be used for maintenance, marketing, security patrols, and other public services or improvements. For instance, if such a district were to be formed for the Plan Area, funding could be used to enhance sanitation and cleaning, as well as improve the streetscape and pedestrian experience.

By law, assessments for BIDs or PBIDs are not taxes for the general benefit of a city, but rather an assessment for improvements, services, and programs that will directly benefit the assessed facilities within the district.

A VARIETY OF FUNDING MECHANISMS CAN BE USED FOR:

- » Streets
- » Sewer Systems
- » Utility Infrastructure
- » Police, Fire, and Ambulance Service
- » Schools
- » Parks
- » Libraries
- » Museums & Other Cultural Facilities
- » Landscaping Improvements
- » Bikeway & Pedestrian Enhancements

A district can be established through an affirmative majority vote of the businesses or property owners. A non-profit organization or an advisory board can be appointed to govern the district, typically all businesses or property owners within the district are automatically made members of the organization, however a board of directors may be established to over see the assessment district.

COMMUNITY FACILITIES DISTRICTS (CFDS)

Similar to assessment districts, Mello-Roos bonds are used to finance the construction of needed community infrastructure through the creation of a Community Facilities District. A CFD is formed when the property owners in a geographical area agree to impose a tax on the land to fund infrastructure improvements. Unlike assessment districts, however, CFDs are most commonly formed in cases in which the geographic area encompasses a small number of property owners who intend to subdivide the land for sale. To be enacted, CFDs require a public vote with a two-thirds majority, which can be a difficult hurdle. Mello-Roos law allows the taxes to be proportionally subdivided and passed on to future landowners. The revenue can then be

used either for pay-as-you-go funding or to pay off bonds issued against the anticipated revenue from the CFD.

CFDs may be used to finance public facilities, infrastructure, and community services for new residential, commercial, or industrial developments. The funds may also be used to recuperate administrative expenses used in forming the CFD and administering annual taxes and debt.

EMWD will consider the creation of CFD's for new development or infrastructure that will be turned over to the District upon completion of construction.

8.13.5 OTHER ASSESSMENT DISTRICTS

In an assessment district, property owners agree to pay an additional fee or tax to fund improvements in a specific geographic area, similar to the other mechanisms described above. The amount that each property owner pays must be proportional to the benefit the property will receive from the proposed improvements. Assessment districts are established by an affirmative vote of property owners representing over 50 percent of the funding to be provided. A variety of assessment districts exist, and each feature unique rules for formation and use; examples include sewer, utility, parking, and landscaping and lighting districts.

Assessment districts are most useful for funding very specific categories of ongoing operations and maintenance costs.

LANDSCAPE AND LIGHTING DISTRICT

A Landscape and Lighting District for the Plan Area could help to improve the streetscape by funding improvements such as new street lights and traffic signals, landscaping, parkways, medians, drainage facilities, and graffiti removal. To form such a district, the Responsible Jurisdiction (e.g., City of Highland or City of San Bernardino) would conduct a study, prepare an engineer's report and propose the formation of a district and the levy of assessments. Affected property owners would then be notified of a public hearing to address concerns. For commercial properties similar to those along 5th and 3rd, funding is typically assessed by "Front Footage", or on a lot front foot basis.

8.13.6 GRANT PROGRAMS

A wide variety of regional, state, and federal competitive grant programs exist to distribute funds earmarked for specific types of infrastructure projects. These programs vary in their availability from year to year. The following are a few grant programs that can fund implementation of key capital cost components within the Plan Area. This

list is not intended to be exhaustive. The availability of some programs may vary, and therefore require diligent tracking.

REGIONAL AND STATE SOURCES

Southern California Association of Governments Regional Transportation Plan (RTP)

As required by law, the Southern California Association of Governments (SCAG) assembles its RTP every four years to outline the distribution of transportation funds that it expects to receive from the federal government for the next 25 years. Inclusion in the RTP significantly enhances the potential for a project to receive funds and compete for other competitive grants. Projects proposed for inclusion must undergo a competitive evaluation process. The current RTP—which is also part of a sustainable communities strategy—was approved in 2016.

CalTrans Active Transportation Program (ATP)

Caltrans' Active Transportation Program (ATP) consolidates various transportation programs at both the state and federal level, including the federal Transportation Alternatives Program (TAP), Bicycle Transportation Account (BTA), and State Safe Routes to School. Approximately \$240 million will be awarded through the 2020-

2021 state funding years and distributed into three categories: Statewide competition (50 percent), Metropolitan Planning Organization (e.g., SCAG) projects for regions with 200,000 or more residents (40 percent), and small urban and rural regions with populations of less than 200,000 (10 percent).

The goal of an ATP is to encourage increased use of active modes of transportation, including walking and biking, as well as the safety and mobility of non-motorized users. Eligible projects within the AGSP could include developing new bike and walkways, as well as adding new landscaping, traffic control devices, and enhanced street lighting.

SCAG administers the regional portion of the ATP and relies on the California Transportation Commission (CTC) Call for Proposals process to select the capital projects to be funded through the regional program. Cities can also apply directly for the statewide portion; during the most recent funding cycle (ATP Cycle 3), 40 projects were recommended to receive funding of nearly \$132 million.

Integrated Regional Water Management Grant (DWR and SWRCB)

Proposition 1, a water bond passed by California voters in 2014, will help fund over \$510 million in Integrated Regional Water Management (IRWM) - related planning and implementation projects throughout the State, with \$63 million dedicated to the Santa Ana Watershed Project Authority (encompassing the Plan Area). Implementation grants will be solicited at a future date; eligible projects for the Plan Area could include stormwater capture, water reuse, providing new open space, and other green streets measures. It should be noted that IRWM grant funding is strictly under DWR and not under the State Water Resources Control Board (SWRCB) Division of Financial Assistance. However, SWRCB DFA has Prop 1 grant monies for water projects.

California Natural Resources Agency Urban Greening Grants

The Urban Greening Program intends to supplement urban greening and urban forestry projects that reduce greenhouse gas emissions and provide multiple benefits.

This competitive grant program, funded by a \$50 Million Specified General Fund appropriation, gives priority consideration to projects located within and benefiting disadvantaged communities.

FEDERAL SOURCES

The Fixing America's Surface Transportation (FAST) Act was signed into law in December 2015, and authorizes federal funding for a wide array of transit improvements through fiscal year 2020. It includes a number of potential funding sources that could benefit the Plan Area, including Capital Investment Grants, Urbanized Area Formula Grants, and Surface Transportation Block Grant Programs.

The FAST Act also established a new National Surface Transportation and Innovative Finance Bureau within the Department to serve as a consolidated resource for providing local government agencies with federal funding, financing, and technical assistance.

Surface Transportation Block Grant Program (STBG)

The Surface Transportation Block Grant Program is one of the primary flexible funding sources available for transit at the local level. These funds may be used for a wide array of transit corridor capital improvements, including public

transportation capital improvements, fringe and corridor parking facilities, bicycle and pedestrian facilities, and intercity or intracity bus terminals and bus facilities. TBG funding is apportioned directly to SCAG by the Federal Highway Administration. The funding is allocated by the State of California, with a non-federal funding match requirement of 11.47 percent.

With respect to planning, Surface Transportation Plan (STP) funds can be used for surface transportation planning activities, wetland mitigation, transit research and development, and environmental analysis. Other eligible projects under STP include transit safety improvements and most transportation control measures. STP funds are distributed within a State based on population and other programmatic categories.

Transportation Alternatives (TA-Set Aside)

Within the STBG funding above is a set amount called the Transportation Alternatives "Set-Aside" (formerly Transportation Alternatives Program, or TAP). The TA Set Aside finances projects defined as "transportation alternatives", including on- and off-road pedestrian and bicycle facilities, recreational programs, infrastructure projects for improving "non-

driver" access to public transportation; enhanced mobility, community improvement activities, and environmental mitigation.

The TA Set-Aside also funds activities related to the former Safe Routes to School (SRTS) program, which helped fund the construction of infrastructure-related projects on public roads and bicycle pedestrian pathways near schools. While apportioned funding for this program has been eliminated, the TAP program makes these activities eligible as long as they conform to TAP requirements.

8.13.7 OTHER POTENTIAL FINANCING TOOLS

In addition to the financing tools described in previous sections, two emerging financing strategies that leverage multiple sources of funding could be used to make longer term and larger investments. These types of funding/financing sources may require the oversight of the IVDA to identify and pair potential investment partners with property owners.

STRUCTURED FUNDS

A "structured fund" is a loan fund that pools money from different investors with varying risk and return profiles. Structured funds have a very specific dedicated

purpose, which is clearly defined prior to forming the fund, and they are managed by professionals with fund formation and loan underwriting experience. Because at least a proportion of the investors in a structured fund have an expectation of return on investment, the types of projects financed with these funds must be revenue generating. For example, many regions have begun forming structured funds to acquire and develop affordable housing near transit, which generates rental revenues that can be used to pay back investors. Similarly this type of investment structure could be used to finance development of a business park or industrial complex that also generates rental revenues. However, this tool is not well suited for infrastructure improvements, which are not revenue generating.

REVOLVING LOAN FUNDS (RLF)

A “revolving loan fund” is a pool of money dedicated to specific kinds of investments. As the loans are repaid, the funding pool is reallocated and loaned out again. RLF initial funding sources are typically public or private “seed money”—such as a grant, other public funds, or the one-time proceeds from sale of an asset—and/or an ongoing stream of revenue like a dedicated portion of a new or existing tax. RLFs can provide low-interest loans and access to capital markets for projects that have poor

risk profiles to meet economic development, environmental, or other public policy goals. In contrast to a structured fund, which is capitalized by investors with an expectation of return, the seed money used to start an RLF typically does not need to be paid back, so the funding can revolve indefinitely.

If the Partner Jurisdictions or the IVDA are able to identify a source for the seed money, an RLF may be a feasible financing tool for infrastructure in the Plan Area.

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APPENDIX A

**GENERAL PLAN
AMENDMENTS &
CONSISTENCY**

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APPENDIX A GENERAL PLAN AMENDMENTS & CONSISTENCY

A.1 General Plan Amendments

A.1.1 CITY OF HIGHLAND GENERAL PLAN

LAND USE DESIGNATION

For the portion of the Plan Area that lies in the City of Highland, the Highland General Plan land use map includes the following land use designations for the majority of the Plan Area: Industrial, Business Park, and Planned Commercial (Per the General Plan Land Use Element, development within areas designated Planned Commercial must be processed through the use of a specific plan). A small portion of the Plan Area, properties north of 5th Street and south of 6th Street between Victoria and Central Avenues, is designated as Low Density Residential and Planned Development (A multi-family residential designation). Per the Land Use Element, development within

areas designated Planned Development must be processed through the use of a specific plan.

In order to implement the Industrial Mixed Use land use designation of the Specific Plan, a General Plan Amendment is required to be adopted concurrently with adoption of the Specific Plan. The amendment will involve an update to the Highland General Plan land use map (Figure 2-2, *General Plan Land Use*) to add the Industrial Mixed Use as a new land use designation for the entire Plan Area. The amendment will also involve a text amendment to the Land Use Plan section of the Land Use Element to add the Industrial Mixed Use land use designation and accompanying description. With adoption of the General Plan Amendment, the Specific Plan will be consistent with the Highland General Plan.

ROADWAY CLASSIFICATION AND STREET SECTIONS

The City of Highland Circulation Element has seven roadway classifications: Collector Street, Special Collector Street, Special Secondary Highway, Secondary Highway, Major Highway, Primary Arterial, and Modified Primary Arterial. These classifications are defined in detail in the Circulation Element and mapped in Figure 3-2, *Roadway Network*.

Table A.1, *Street Classification Amendments*, lists the streets that traverse the Plan Area and their roadway classifications pursuant to the Circulation Elements of the City of Highland General Plan and City of San Bernardino General Plan. The table also shows whether a General Plan Amendment is required to implement the Specific Plan; specifically, an amendment to the roadway classifications and/or street sections of the Circulation Elements, and if so, what the amendment(s) will entail.

A.1.2 CITY OF SAN BERNARDINO GENERAL PLAN

ROADWAY CLASSIFICATION AND STREET SECTIONS

Refer to discussion above on Roadway Classification and Street Sections for City of Highland General Plan. Also refer to Table A.1, *Street Classification Amendments*.

LAND USE DESIGNATION

For the portion of the Plan Area that lies in the City of San Bernardino, the San Bernardino General Plan land use map includes the following land use designations for the Plan Area: Commercial General, Industrial Light, and Residential Multi-Family.

In order to implement the Specific Plan and set for the Industrial Mixed Use land use designation of the Specific Plan, a General Plan Amendment is required to be adopted concurrently with adoption of the Specific Plan. The amendment will involve an update to the San Bernardino General Plan land use map to add the Industrial Mixed Use as a new land use designation for the entire Plan Area. The amendment will also involve a text amendment to the Land Use Designations section of the Land Use Element to add the Industrial Mixed Use land use designation and accompanying description. With adoption of the General Plan Amendment, the Specific Plan will be consistent with the San Bernardino General Plan

A.2 General Plan Consistency

General Plan Consistency California law (Government Code §65450-§65453) allows cities to develop and administer Specific Plans as an implementation tool for their General Plan. As a requirement of state law, Specific Plans must demonstrate consistency in regulations, guidelines and programs with the goals, objectives, policies, standards, programs and uses that are established in the General Plan. After an analysis of the City of Highland and San Bernardino General Plans, the Airport Gateway Specific Plan (WMSP) has been found to be consistent with and supportive of both jurisdiction's General Plans, as amended.

A discussion of the relationship of this Specific Plan to relevant General Plan goals and polices from each jurisdiction is provided in this section. Only goals and policies applicable to the Airport Gateway Specific Plan are analyzed here for consistency. Goals and policies found to be unrelated to the Specific Plan have been intentionally omitted from this discussion.

For the AGSP to be implemented, various aspects of the respective General Plans will need to be amended concurrently with adoption of the Specific Plan in areas such as roadway and bike lane classifications and in some cases for land use. Adoption of these

TABLE A.6 STREET CLASSIFICATION AMENDMENTS

Street	General Plan Roadway Classification		Specific Plan Classification	General Plan Amendment Required?
	Highland	San Bernardino		
North-South Streets				
Lankershim Avenue	Collector Street	Secondary Highway	Collector	Highland: No San Bernardino: Yes (Text and figure amendment for street redesignation as it would go from Secondary Highway to Collector)
Victoria Avenue	Major Highway	Secondary Highway	Major Highway-100/104'	Highland: No San Bernardino: Yes (Text and figure amendment for street redesignation as it would go from Secondary to Major Highway - 104') <small>'Note: The right-of-way width for streets classified as a Major Highway changes from 100' in San Bernardino to 104' in the City of Highland. An additional 1' is added to the parkway and sidewalk on both sides of the street</small>
Palm Avenue	Major Highway and Primary Arterial	Major Arterial	Major Highway - 100/104'	Highland: Yes (Text and figure amendment for street redesignation as it would go from Major Highway and Primary Arterial to Major Highway - 104' throughout) San Bernardino: No <small>'Note: The right-of-way width for streets classified as a Major Highway changes from 100' in San Bernardino to 104' in the City of Highland. An additional 1' is added to the parkway and sidewalk on both sides of the street</small>
Del Rosa Drive	Secondary Highway	N/A	Collector	Highland: Yes (Text and figure amendment for street redesignation as it would go from Secondary Highway to Collector).

Street	General Plan Roadway Classification		Specific Plan Classification	General Plan Amendment Required?
	Highland	San Bernardino		
East-West Streets				
6th Street	Collector Street	Collector Street	Collector Street	Highland: No San Bernardino: Yes (Text and figure amendment... Circulation Element roadway section has 60' ROW and the Specific Plan is proposing a 66' ROW, consistent with the ROW dimension of the Collector Street in the Highland Circulation Element)
5th Street	Major Highway	Major Arterial	Modified Primary Arterial - 124'	Highland: Yes (Text and figure amendment... Circulation Element roadway section has a 104' ROW and Specific Plan is proposing a 124' foot ROW. Also, roadway classification name would change from Major Highway to Modified Primary Arterial – 124') San Bernardino: Yes (Text and figure amendment... Circulation Element roadway section has a 100' ROW and Specific Plan is proposing a 124' ROW. Also, roadway classification name would change from Major Highway to Modified Primary Arterial – 124')
3rd Street	Primary Arterial and Major Highway	Major Arterial	Modified Primary Arterial - 124'	Highland: Yes (Text and figure amendment... Circulation Element roadway section has a 104' ROW and Specific Plan is proposing a 124' ROW. Also, roadway classification name would change from Primary Arterial and Major Highway to Modified Primary Arterial – 124') San Bernardino: Yes (Text and figure amendment. Circulation Element roadway section has a 100' ROW and Specific Plan is proposing a 124' ROW. Also, roadway classification name would change from Major Highway to Modified Primary Arterial – 124')

amendments is necessary for the Specific Plan to be consistent with both General Plans, and the proposed amendments are outlined in the following consistency analysis.

A.2.1 CITY OF HIGHLAND

For the portion of the Plan Area that lies in the City of Highland, the Highland General Plan land use map includes the following land use designations for the majority of the Plan Area: Industrial, Business Park, and Commercial. A small portion of the Plan Area, properties north of 5th Street and south of 6th Street between Victoria and Central Avenues, is designated as Low Density Residential and Planned Development (a multi-family residential designation).

In order to implement the Specific Plan and set for the Industrial Mixed Use land use designation of the Specific Plan, a General Plan Amendment is required to be adopted concurrently with adoption of the Specific Plan. The amendment will involve an update to the Highland General Plan land use map (Figure 2-2, General Plan Land Use) to add the Industrial Mixed Use as a new land use designation for the entire Plan Area. The amendment will also involve a text amendment to the Land Use Plan

section of the Land Use Element to add the Industrial Mixed Use land use designation and accompanying description.

Additionally, implementation of the Specific Plan will require an amendment to the Highland General Plan Circulation Element. Specifically, a text amendment will be required to the Roadway Classifications section of the Circulation Element to add the new/revised roadway classifications of the Specific Plan. Figures 3-1, Roadway Cross-Sections, and Figure 3-2, Roadway Network, of the Circulation Element will also require amendments to add the new/revised roadway classifications of the Specific Plan.

With adoption of the General Plan Amendment's, the Specific Plan will be consistent with the Highland General Plan.

LAND USE ELEMENT

The Specific Plan serves as the planning and zoning tool for the Plan Area to ensure the systematic implementation of the City of Highland General Plan. The Specific Plan helps implement the Highland General Plan Land Use Element, which is the key element that translates the City's vision from a long-range narrative to a land use plan and policy document that organizes the physical environment into a logical, functional, and aesthetic pattern consistent

with the Highland vision. The Specific Plan was developed consistent with the Highland vision and based on key objectives set forth in the Land Use Element. For example, the Specific Plan helps implement the primary objective of the Land Use Element, which is to set the land use direction of the Plan Area consistent with the vision of the Specific Plan and the Highland General Plan vision. The Specific Plan serves as the land use plan that will oversee the systematic development of the Plan Area's physical environment into a logical, functional, and aesthetic pattern consistent with the vision and objectives of the Specific Plan.

Also, the Specific Plan is a collaborative effort between the cities of Highland and San Bernardino and IVDA, intended to provide a regulatory framework for the Plan Area that includes a comprehensive theme for the corridor, refines land use and development codes, provides efficient and effective access to freeway corridors, improves infrastructure and drainage, and develops streetscape and design standards that provide opportunities for transition and change.

To further the vision of the Specific Plan and consistent with the general objectives of the Land Use Element, the Specific Plan seeks to:

- » Plan for future growth of the Plan Area.

- » Provide clarity and direction in land use guidance for the Plan Area.
- » Create places for people to work in the Plan Area.
- » Strengthen commercial opportunities in the Plan Area.
- » Expand the City's employment base.
- » Ensure land use compatibility throughout and abutting the Plan Area.

Other more specific Land Use Element goals that are achieved by the Specific Plan include:

- » **Goal 2.5.** Promote a mix of attractive employment-generating areas with a mix of uses that provide a sound and diversified economic base and that are compatible with the community's overall residential character.
- » **Goal 2.6.** Maintain an organized pattern of land use that minimizes conflicts between adjacent land uses.
- » **Goal 2.8.** Coordinate land use planning programs between local, regional, state, and federal jurisdictions.
- » **Goal 2.12.** Create a signature, mixed-use master-planned community that integrates commercial, office and residential uses in a unique environmental setting.

- » **Goal 2.13.** Transform the 5th Street Corridor into a major employment center and gateway to the San Bernardino International Airport.

For example, and in response to Goal 2.13, as stated in the General Plan Land Use Element (page 2-38), with its strategic location between the San Bernardino International Airport (SBIA) and SR-330/I-210 corridor, the 5th Street Corridor (which traverses the entire stretch of the Plan Area) represents an excellent opportunity to capture some of the potential employment growth needed as a result of the continued growth of the SBIA. To position Highland to take advantage of this increased demand, the General Plan Land Use Plan calls for Business Park and Industrial land uses along the 5th Street Corridor. Consistent with Goal 2.13, the Specific Plan's land use designation of Industrial Mixed Use serves as the catalyst to provide the mix of uses envisioned for the 5th Street Corridor (including business parks and industrial uses), which in turn will help capture the employment growth resulting from development of the Plan Area and growth of the SBIA. As stated in the Specific Plan's vision, the Plan Area is a thriving concentration of industrial and office-based businesses, including manufacturing,

logistics, and technology uses. These businesses provide employment, across a range of skills, for the region's residents.

Additionally, the first mention of the Plan Area in the Highland General Plan occurs on page 1-2 under the heading "Invigorating Key Activity Centers." Further, the Land Use Element identifies Community Policy Areas in the City, which are areas that require special attention and necessitate the creation of goals and policies unique to those areas. One of these Community Policy Areas is the 5th Street Corridor. The 5th Street Corridor is one of the locations in Highland that have been "biding their time," in other words this is an area of the City that is primed for development under the Business Park land use designation assigned in 2005. However, development has not progressed as anticipated primarily due to lack of funding for supporting infrastructure. The purpose of the Specific Plan is to "jump start" the development of the corridor by focusing on identifying the underlying infrastructure required to support the proposed "Business Park" uses, which will occur under the Industrial Mixed Use land use designation of the Specific Plan, and a commitment by the cities of Highland and San Bernardino to support assemblage of small parcels to provide parcels large enough for development under the Specific Plan.

CIRCULATION ELEMENT

As development continues in the City of Highland, including development of the Plan Area pursuant to the Specific Plan, traffic on its roadway systems will increase. As stated in the Highland General Plan Circulation Element, to ensure the safe and efficient movement of people and goods, careful planning of the roadway network is essential (page 3-1). Additionally, as noted in Chapter 6.0, *Mobility Plan*, the AGSP is central to and well served by Interstate 210, Interstate 10, and Interstate 215. Tippecanoe Avenue, Palm Avenue and 5th Street are the primary arterial roadways serving as regional access corridors to the Plan Area. To improve mobility for all users in and through the Plan Area, the mobility plan presents a series of improvements to effectively manage truck traffic and accommodate a range of transportation options in the area.

The components of the mobility plan are designed in response to the Specific Plan's vision and objectives and are also regulated by the Circulation Elements of the City of Highland and City of San Bernardino General Plans. The mobility plan also responds to recent laws pertaining to "complete streets", including Assembly Bill 32, Assembly Bill 1358, Senate Bill 375, and Senate Bill 743. Creating a safe, efficient, and

balanced, multimodal mobility network is a priority of these plans and laws, as well as of the Specific Plan. The mobility plan puts forth the plans for creating complete streets and improving the way people, goods and resources move into, through and beyond the Plan Area.

The Specific Plan's mobility plan was developed consistent with and implements key goals set forth in the Highland General Plan Circulation Element, including:

- » **Goal 3.1.** Provide a comprehensive transportation system that facilitates current and long-term circulation in and through the City.
- » **Goal 3.2.** Provide a well-maintained roadway system.
- » **Goal 3.4.** Provide a safe circulation system.
- » **Goal 3.6.** Provide a circulation system that reduces conflicts between commercial trucking, private/public transportation and land use.
- » **Goal 3.7.** Protect and encourage bicycle travel.
- » **Goal 3.9.** Ensure adequate parking is made available to City residents, visitors, and businesses.

PUBLIC SERVICES & FACILITIES ELEMENT

As stated in the Highland General Plan Public Services & Facilities Element (page 4-1), public services (e.g., law enforcement, fire protection, and solid waste) and public and private utilities and infrastructure systems (e.g., water, wastewater, drainage, natural gas, electricity, telecommunications) are essential to supporting Highland's quality of life and future growth as well as the community's health and well-being. As Highland continues to grow and change, including development of the Plan Area pursuant to the Specific Plan, the public services and public and private utilities and infrastructure systems necessary to support new development will need to keep pace and will continue to require maintenance, rehabilitation, and replacement.

As businesses in the Plan Area are developed, additional infrastructure investment will be required to provide an adequate level of service to accommodate both existing uses and the projected growth. As stated in Chapter 7.0, *Infrastructure*, of the Specific Plan, the purpose and intent of the chapter is two-fold: 1) to identify the infrastructure and utilities and service systems that will be needed to adequately serve the existing and future land uses of the Plan Area, and 2) to ensure that

changes in land use also improve the area's infrastructure, utilities, and service systems to support the new uses. The improvements outlined in Chapter 7.0 will help facilitate the Plan Area's transformation to a more sustainable and efficient area. Future improvements include identifying ways that infrastructure can support existing and new development while promoting sustainable objectives of conservation, efficiency, and natural resource protection.

Additionally, the Specific Plan's was developed consistent with and implements key goals set forth in the Highland General Plan Public Services & Facilities Element, including:

- » **Goal 4.1.** Coordinate and balance the provision of public services with development activity to eliminate service gaps, maximize the use of public facilities, provide efficient and economical public services, achieve the equitable and legally defensible sharing of costs of such services and facilities, and maintain adequate service systems capable of meeting the needs of Highland residents.
- » **Goal 4.2.** Provide a water system that produces high quality water, sufficient water pressure and necessary quantities of water to meet domestic demands.

- » **Goal 4.3.** Provide a safe and effective sewer system that meets the needs of Highland residents, businesses and visitors.
- » **Goal 4.4.** Maintain an effective drainage system that protects people and property from overflows and flood disasters.
- » **Goal 4.5.** Minimize, recycle, and dispose of solid waste in an efficient and environmentally sound manner.
- » **Goal 4.6.** Coordinate with private utility companies to ensure the adequate provision of electricity, natural gas and telecommunication infrastructure to existing and new development.
- » **Goal 4.7.** Ensure the provision of adequate law enforcement and police protection services and facilities.
- » **Goal 4.8.** Ensure the provision of adequate staffing, equipment and facilities to support effective fire protection and emergency medical services that keep pace with growth.

CONSERVATION & OPEN SPACE ELEMENT

As stated in the Highland General Plan Conservation & Open Space Element, Highland takes a broad and inclusive view for planning open space (e.g., natural

open space) and natural resources (e.g., air quality, water, mineral resources, wildlife, cultural resources) and integrating them with future development is both a challenge and opportunity. The City realizes that protecting these natural resources goes beyond a passive preservation role; it requires proactive management for the enjoyment of the entire community now and into the future.

Although the Plan Area covered by the Specific Plan does not contain any open space areas that require preservation or integrating into future development that will be accommodated by the Specific Plan, its land use plan and provisions provide a means and strive to protect the City's and regions natural resources. For example, Chapter 5, Design Standards and Guidelines, of the Specific Plan outlines a number of sustainable design and green measures. As stated in Chapter 5, the Specific Plan provides a sustainable approach to site and building development and landscape design. It includes sustainable guidelines and standards applicable to development within the Plan Area, which reinforce development that is attractive, efficient, and environmentally sustainable.

Additionally, Chapter 7.0, Infrastructure, of the Specific Plan outlines standards and requirements that apply to drainage

infrastructure, thereby ensuring that impact to water quality will not occur. In addition to the standards and requirements and as stated in Chapter 7.0, individual development projects will be required to comply with the water quality standards (construction and operation) in place at the time of project submittal.

Furthermore, the Specific Plan's mobility plan puts forth the plans for creating complete streets and improving the way people, goods and resources move into, through and beyond the Plan Area; therefore, ensuring that the local and regional air quality are protected from emissions generated by mobile sources.

Finally, the Specific Plan helps implement a number of goals of the Conservation & Open Space Element, including:

- » **Goal 5.5.** Continue to reduce urban runoff. Goal 5.6. Monitor and strengthen Highland's water conservation practices.
- » **Goal 5.8.** Protect, document and minimize disruption of sites that have archaeological significance.
- » **Goal 5.12.** Develop and maintain trail and bikeway connections to recreational facilities, schools, existing transportation routes, natural features and regional trail systems.

- » **Goal 5.16.** Continue to encourage, support and adopt energy-conservation practices.
- » **Goal 5.17.** Encourage site design practices that reduce and conserve energy use.
- » **Goal 5.18.** Continue to improve Highland's solid waste management and recycling efforts.
- » **Goal 5.19.** Continue to support air quality planning through land use policies, outreach efforts and coordination with regional air quality agencies.

PUBLIC HEALTH & SAFETY ELEMENT

The Highland General Plan Public Health and Safety Element identifies areas in the City where public and private decisions on land use need to be sensitive to hazardous conditions that pose a potential threat to public health and safety. The element addresses hazards related to geologic and seismic activity, slope instability, flooding, hazardous materials, fire hazards, emergency preparedness, airport land use compatibility and safety, and air quality. Policies of the element address ways to minimize any social, economic, and environmental disruption, and accelerate the City's recovery following a disaster.

The Specific Plan and its associated land use plan were prepared and designed in response to the many public health and safety threats facing Highland and the region in general. The Specific Plan was developed consistent with and implements key goals set forth in the Public Health and Safety Element, including:

- » **Goal 6.1.** Minimize the risk to public health and safety and disruption to social, economic, and environmental welfare resulting from seismic and geologic activities.
- » **Goal 6.3.** Reduce the risk to life and minimize physical injury, property damage, and public health hazards from the effects of a 100-year storm or 500-year storm and associated flooding.
- » **Goal 6.4.** Protect life and property from the potential short- and long-term risks of transporting, storing, treating, and disposing of hazardous materials and wastes in the City.
- » **Goal 6.7.** Reduce risk to people and property by limiting the type and intensity of development within identified aircraft potential zones and ensure adequate public notification of aircraft activities to residents in overflight areas.

- » **Goal 6.8.** Reduce mobile and stationary source air pollutant emissions through cooperation and endorsement of the San Bernardino Regional Air Quality Plan and support of feasible techniques, incentives, and regulatory measures to achieve significant air quality improvements and any necessary air quality related lifestyle and economic changes while sustaining continued economic growth.

For example, consistent with the Public Health & Safety Element and in response to Goal 6.7, Chapter 4, Land Use and Development Standards, of the Specific Plan includes provisions that require consistency with the City of Highland’s Airport Overlay Zone (Airport Safety Zone D). As stated in Chapter 4, the Airport Overlay Zone and safety provisions are established to provide greater safety to both aviators and the general public by establishing requirements for land use compatibility reviews within designated areas in close proximity to an airport or heliport. The various airport safety zones of the SBIA are illustrated in Figure 4.1, Land Use Plan, of the Specific Plan.

NOISE ELEMENT

As stated in the General Plan Noise Element, the everyday activities of residents, visitors and workers have the potential to

generate a variety of noise sources in the City of Highland. The SBIA contains and is surrounded by multiple commercial and industrial properties, all of which have the potential to generate noise through their business activities. Highland also generates and draws a significant level of passenger and truck traffic through the City along the major roadways and highways, creating mobile sources of noise that can impact noise-sensitive land uses such as homes and schools. The Noise Element provides the goals and strategies necessary to ensure an appropriately quiet environment for the residents, employees and visitors in Highland.

The Specific Plan and its associated land use plan were prepared and designed in response to the many noise issues (mobile and non-mobile) facing Highland. The Specific Plan was developed consistent with and implements key goals set forth in the Noise Element, including:

- » **Goal 7.1.** Protect sensitive land uses and the citizens of Highland from annoying and excessive noise through diligent planning and regulation.
- » **Goal 7.2.** Encourage the reduction of noise from transportation-related noise sources such as automobile and truck traffic.

- » **Goal 7.3.** Protect residents from the effects of “spill over” or nuisance noise.

For example, consistent with the Noise Element and in response to Goal 7.1, Chapter 6, Mobility, of the Specific Plan includes plans and provisions to protect sensitive land uses and individuals from annoying and excessive noise generated by truck traffic. The mobility plan calls for limiting the number of access driveways for development sites and prohibiting truck access along 6th Street, which would help reduce truck traffic noise that would affect sensitive land uses and individuals along this street. The Specific Plan also includes design standards in Chapter 4, Design Standards and Guidelines, that will help protect sensitive land use and individuals from noise generated on commercial/industrial development sites. For example, one design standard requires the provision to buffer (i.e., through the use of walls, landscaping, and setbacks) residential areas along 6th Street and adjacent to Tippecanoe from noise or undesirable views.

HOUSING ELEMENT

The purpose of the Highland General Plan Housing Element is to provide a framework of housing opportunities designed to meet the specific needs of Highland’s existing and future residents. The Housing

Element provides programs created to address housing needs, reduce constraints to housing for all, and set aside land and financial resources for residents and developers.

Under the Specific Plan, the primary land use designation of the Plan Area is Industrial Mixed Use. The other two land use designations are Right-of-Way and Floodway. As stated in the Specific Plan's vision, the Plan Area is a thriving concentration of industrial and office-based businesses, including manufacturing, logistics, and technology uses. The Industrial Mixed Use land use designation does not permit residential development; therefore, the Specific Plan does not provide the means for the Plan Area to further the goals and objectives of the Housing Element. However, the existing residential uses that exist in the Plan Area are permitted to continue as legally non-conforming uses under the Specific Plan. The Specific Plan also includes provisions geared toward ensuring that existing residential uses are adequately buffered (i.e., through the use of walls, landscaping, and setbacks) from future non-residential uses that would be accommodated by the Specific Plan.

Furthermore, as stated in the Specific Plan's vision, the Plan Area is a thriving concentration of industrial and office-

based businesses, including manufacturing, logistics, and technology uses. These businesses provide employment, across a range of skills, for the region's residents, which includes residents of the Plan Area. Also, to ensure no net loss of existing housing, future development will offset housing stock being converted to mixed industrial uses by working with the city to increase development density at other locations within the two cities. Regarding loss of housing, residents will receive relocation assistance through programs established in each jurisdiction.

COMMUNITY DESIGN ELEMENT

As stated in the Highland General Plan Community Design Element, the City believes that a strong Community Design Element will become an important policy guide in the design process. More importantly, the City hopes that by clearly describing and illustrating its design policies, this element will stimulate creative thinking and discussion about community design.

The Specific Plan and its associated land use plan and development standards and design standards and guidelines (which include standards and guidelines for gateways, special treatment edges, building design and orientation, parking, loading and storage areas, walls, fences and screening,

landscaping, and signage) were prepared and designed in response to the City's desire of clearly describing and illustrating its design policies. For example, this is evident in the detailed development standards and design standards and guidelines provided in Chapter's 4, Land Use Plan and Standards, and 5, Design Standards and Guidelines, of the Specific Plan. The Specific Plan was developed consistent with and implements key goals set forth in the Community Design Element, including:

- » **Goal 10.1.** Create a unified and attractive community identity within the context of diverse neighborhoods and land uses.
- » **Goal 10.2.** Create attractive and visually unified major arterial corridors through specialized streetscape and landscape improvement plans.
- » **Goal 10.8.** Ensure that industrial and business park development is professional and attractive in appearance through coordinated site planning, signage and architectural design guidelines.
- » **Goal 10.11.** Promote attractive, appropriately scaled and well-coordinated signs.

- » **Goal 10.12.** Encourage development that is energy efficient and environmentally sustainable.
- » **Goal 10.13.** Appropriately buffer the boundaries between differing land uses and provide transitions where necessary.

AIRPORT ELEMENT

As stated in the Highland General Plan Airport Element, airports dramatically influence how communities grow. From a physical standpoint, they create significant noise and safety impacts. From an economic development perspective, they can have both positive and negative effects. Airports often stimulate adjacent commercial development and services, from hotels, to restaurants and shipping and distribution facilities. The traffic and noise they generate, however, can have negative impacts on existing uses. The SBIA is just south of and abuts the Plan Area's southern boundary.

The Specific Plan and its associated land use plan and development standards were prepared and design in response to the proximity of the Plan Area to the SBIA. Through its land use plan and design and development standards, the Specific Plan ensures that the 5th Street corridor will be designed as an attractive employment center and gateway to the SBIA. This is one of the key objectives of the Specific Plan.

The Specific Plan was developed consistent with and implements key goals set forth in the Airport Element, including:

- » **Goal 11.1.** Reduce exposure of people to aircraft noise and overflights, and ensure adequate public notification through buyer awareness measures.
- » **Goal 11.2.** Reduce the risk to people and property by limiting the type and intensity of development in identified impact areas, ensuring adequate emergency response facilities within or adjacent to airport uses, and requiring adequate public notification of safety policies and procedures.
- » **Goal 11.3.** Promote the development of the 5th Street Corridor as an attractive employment center and gateway to the San Bernardino International Airport.

For example, consistent with the Airport Element and in response to Goal 11.2, the Specific Plan includes provisions that require consistency with the City of Highland's Airport Overlay Zone (Airport Safety Zone D). As stated in Chapter 4, the Airport Overlay Zone and safety provisions are established to provide greater safety to both aviators and the general public by establishing requirements for land use compatibility reviews within designated areas in close proximity to an airport or

heliport. The various airport safety zones of the SBIA are illustrated in Figure 4.1, Land Use Plan, of the Specific Plan.

A.2.2 CITY OF SAN BERNARDINO

For the portion of the Plan Area that lies in the City of San Bernardino, the San Bernardino General Plan land use map identifies three land use designations: Commercial General, Industrial Light, and Residential Multi-Family.

In order to implement the Specific Plan and set forth the Industrial Mixed Use land use designation of the Specific Plan, a General Plan Amendment is required to be adopted concurrently with adoption of the Specific Plan. The amendment will involve an update to the San Bernardino General Plan land use map (Figure LU-2, General Plan Land Use) to add the Industrial Mixed Use as a new land use designation for the portion of the Plan Area that lies in the City of San Bernardino. The amendment to the land use map will also include addition of the Specific Plan Boundaries overlay. As noted in the Land Use Element (page 2-20), "An overlay is intended to reflect a particular characteristic of an area and is applied "over" an underlying land use designation to provide guidance above and beyond the underlying land use designation." Additionally, the amendment will involve a text amendment to the Land

Use Designations section and Table LU-2, Land Use Designations, of the Land Use Element to add the Industrial Mixed Use land use designation and accompanying description. Further, the amendment will involve a text amendment to the Specific Plans section and Table LU-1, Approved Specific Plans, of the Land Use Element to add the Airport Gateway Specific Plan.

Finally, implementation of the Specific Plan will require an amendment to the San Bernardino General Plan Circulation Element. Specifically, a text amendment will be required to the Classification of Streets and Standard Roadway Cross Sections sections of the Circulation Element to add the new/revised roadway classifications of the Specific Plan. Figure C-2, Circulation Plan, of the Circulation Element will also require an amendment to add the new/revised roadway classifications of the Specific Plan.

With adoption of the aforementioned General Plan Amendments, the Specific Plan will be consistent with the San Bernardino General Plan.

LAND USE ELEMENT

The Specific Plan serves as the planning and zoning tool for the Plan Area to ensure the systematic implementation of the City of San Bernardino General Plan. The Specific Plan helps implement the San Bernardino

General Plan Land Use Element, which is the key element that translates the City's vision from a long-range narrative to a land use plan and policy document that organizes the physical environment into a logical, functional, and aesthetic pattern. The Specific Plan was developed consistent with the San Bernardino vision and based on key objectives set forth in the Land Use Element. As stated in Chapter 1, Introduction, of the San Bernardino General Plan, the City's overarching vision is to celebrate the past, value the present, and create opportunities for the future (page 1-18, Chapter 1, Introduction). For example, the Specific Plan helps implement a key objective of the Land Use Element, which is to set the land use direction of the Plan Area consistent with the vision of the Specific Plan and San Bernardino General Plan. In furtherance of the San Bernardino General Plan and the City's vision, the Specific Plan charts a course for development and redevelopment of the Plan Area whereby positive features can be enhanced and built upon and the less desirable features altered and improved (page 1-17, Vision Summary). The Specific Plan serves as the land use plan that will oversee the systematic development of the Plan Area's physical environment into

a logical, functional, and aesthetic pattern consistent with the vision and objectives of the Specific Plan.

Also, the Specific Plan is a collaborative effort between the cities of Highland and San Bernardino and IVDA, intended to provide a regulatory framework for the Plan Area that includes a comprehensive theme for the corridor, refines land use and development codes, provides efficient and effective access to freeway corridors, improves infrastructure and drainage, and develops streetscape and design standards that provide opportunities for transition and change.

Further, the Specific Plan is responsive to the City's vision as it represents an opportunity for the City to accomplish the City's stated desires outlined in the Land Use Element (page 2-6), including:

- » Realize higher quality development throughout the Plan Area.
- » Ensure compatibility among land uses throughout the Plan Area.
- » Create a distinct personality and identify for the Plan Area.

- » Revitalize the Plan Area’s streets so that they offer a vibrant mix of well-designed land uses instead of a strip of faceless, deteriorating commercial and industrial development.
- » Achieve a revitalized and economically vibrant development plan for the Plan Area.

The Specific Plan was also developed consistent with and implements key goals set forth in the Land Use Element, including:

- » **Goal 2.2.** Promote development that integrates with and minimizes impacts on surrounding land uses.
- » **Goal 2.3.** Create and enhance dynamic, recognizable places for San Bernardino’s residents, employees, and visitors. Goal 2.4. Enhance the quality of life and economic vitality in San Bernardino by strategic infill of new development and revitalization of existing development.
- » **Goal 2.5.** Enhance the aesthetic quality of land uses and structures in San Bernardino.
- » **Goal 2.7.** Provide for the development and maintenance of public infrastructure and services to support existing and future residents, businesses, recreation, and other uses.

- » **Goal 2.8.** Protect the life and property of residents, businesses, and visitors to the City of San Bernardino from crime and the hazards of flood, fire, seismic risk, and liquefaction.
- » **Goal 2.9.** Protect the airspace of the San Bernardino International Airport and minimize related noise and safety impacts on our citizens and businesses.

For example, and in response to Goal 2.4, the Specific Plan puts for the land use plan, tailored development standards and design guidelines, and infrastructure and implementation plans needed to enhance the quality of life and economic vitality in and around the Plan Area through strategic infill development and revitalization of existing development. Also, in accordance with Goal 2.5 the Specific Plan’s tailored development standards and design guidelines would help enhance the aesthetic quality and character of land uses and structures in and around the Plan Area.

Furthermore, the San Bernardino General Plan assigns a “Strategic Area” designation to the San Bernardino International Airport and Trade Center. Strategic areas are locations where the City anticipates future development to occur and identifies pertinent strategies to guide this development. The following text is

abstracted from the General Plan Land Use Element (Pp. 2-64 and 2-65): “The San Bernardino International Airport and Trade Center (SBIA) Strategic Area is located on the southeastern edge of the City. The Strategic area is bounded on the north by 3rd and 5th Streets, on the south by Mill Street, on the west by Lena Road, and on the east by the Cities of Redlands and Highland.....The SBIA can accommodate large warehousing and manufacturing companies, and more importantly, it serves as a transportation hub, providing access to air transportation and close proximity to major rail lines and roadways. There is an opportunity for the properties surrounding the SBIA to develop with uses that are related to or can benefit from proximity to the airport. For instance, business oriented and general aviation related uses, manufacturing, warehousing, office and travel related business such as hotels, could be attracted by the presence of the Airport.” With its strategic location, the Plan Area represents an excellent opportunity to capture some of the potential growth needed as a result of the continued growth of the SBIA. The Specific Plan’s land use designation of Industrial Mixed Use serves as the catalyst to provide the mix of uses envisioned for the areas abutting and surrounding SBIA Strategic Area (including business parks and industrial

uses). As stated in the Specific Plan's vision, the Plan Area is a thriving concentration of industrial and office-based businesses, including manufacturing, logistics, and technology uses.

ECONOMIC DEVELOPMENT ELEMENT

As stated in the San Bernardino General Plan Economic Development Element, the purpose of the element is to guide the City in expanding the local economy, which provides jobs, attracts and retains businesses, supports diverse and vibrant commercial areas, and brings in sufficient revenue to support local programs and services.

To achieve a balanced and healthy economy for the City and consistent with the purpose of the Economic Development Element, the Specific Plan sets forth the vision, objectives and land use plan necessary to ensure a prosperous economic future for not only the Plan Area but for the City and region. The Specific Plan's land use designation of Industrial Mixed Use serves as the catalyst to provide a mix of use (including business parks and industrial uses), which in turn will not only help capture the employment growth resulting from development of the Plan Area and growth of the SBIA, but also contribute to the overall City's economic growth. Implementation of the Specific

Plan would help expand the local economy through the creation of jobs, attraction of new businesses, and provision of diverse and vibrant industrial and commercial uses.

The Specific Plan was also developed consistent with and implements key goals set forth in the Economic Development Element, including:

- » **Goal 4.1.** Encourage economic activity that capitalizes upon the transportation and locational strengths of San Bernardino.
- » **Goal 4.4.** Attract businesses through an efficient improvement program.
- » **Goal 4.5.** Identify and attract new employment types/land uses that complement the existing employment clusters and foster long-term economic growth.
- » **Goal 4.10.** Optimize existing redevelopment project areas to identify and prioritize development opportunities.
- » **Goal 4.11.** Ensure fiscal viability in order to provide a high level of services to the community and finance capital projects.

COMMUNITY DESIGN ELEMENT

The San Bernardino General Plan Community Design Element provides policy guidance that respects San Bernardino's

diverse built environment while seeking to unify the City through carefully crafted design policies. As stated in the Community Design Element, the City recognizes the importance of community appearance and design to its vitality and future.

The Specific Plan and its associated land use plan and development standards and design standards and guidelines (which include standards and guidelines for gateways, special treatment edges, building design and orientation, parking, loading and storage areas, walls, fences and screening, landscaping, and signage) were prepared in response to the City's desire of clearly describing and illustrating its design policies. For example, this is evident in the detailed development standards and design standards and guidelines provided in Chapter's 4.0, *Land Use Plan and Standards*, and 5.0, *Design Standards and Guidelines*, of the Specific Plan. The Specific Plan was also developed consistent with and implements key goals set forth in the Community Design Element, including:

- » **Goal 5.2.** Attractively design, landscape, and maintain San Bernardino's major corridors.
- » **Goal 5.4.** Ensure individual projects are well designed and maintained.

- » **Goal 5.7.** Develop attractive and safe commercial, office, and industrial projects that are creatively designed and intelligently sited.

The Specific Plan's land use plan, tailored development standards and design guidelines, and implementation plan will ensure that the major corridors that traverse the Plan Area (e.g., 3rd, 5th, and 6th Streets) are attractively designed, landscaped, and maintained (Goal 5.2); individual development projects accommodated by the Specific Plan will be of high quality design (Goal 5.4); and development projects (e.g., commercial, office, and industrial projects) are designed to be attractive and properly sited to ensure compatibility and accessibility, among other design considerations (Goal 5.7). For example, Chapter 5.0, *Design Standards and Guidelines*, of the Specific Plan provides detailed design standards and guidelines that call for enhanced parkway plantings that elevate the visual importance of the corridors (sense of place) and ensure that buildings have enhanced architectural treatments and screening to establish consistency along the corridor with industrial uses that have been built in adjacent areas. Chapter 6.0, *Mobility*, also sets the standard for street sections, which call for the provision of parkway-

separated public sidewalks along the street frontages that will help enhance the visual character of the corridors.

CIRCULATION ELEMENT

As stated in the San Bernardino General Plan Circulation Element, the major purpose of this element is to design and improve a circulation system to meet the current and future needs of all its residents. The circulation system should be accessible to all economic segments of the City to make their lives more convenient and practical. It should make use of existing infrastructure wherever practical. Finally, it should preserve important transportation routes for future planning needs.

As development continues in the City of San Bernardino, including development of the Plan Area pursuant to the Specific Plan, traffic on its roadway systems will increase. As noted in Chapter 6.0, *Mobility Plan*, of the Specific Plan, the Plan Area is central to and well served by State Route 210, Interstate 10, and Interstate 215. Tippecanoe Avenue, Palm Avenue and 5th Street are the primary arterial roadways serving as regional access corridors to the Plan Area. To improve mobility for all users in and through the Plan Area, the Specific Plan's mobility plan presents a series of improvements to effectively manage truck traffic anticipated

from the increase in new industrial uses and accommodate a range of transportation options in the area including non-motorized options.

The components of the AGSP's mobility plan are designed in response to the Specific Plan's vision and objectives and are also regulated by the Circulation Elements of the City of Highland and City of San Bernardino General Plans. The mobility plan is consistent with recent laws pertaining to "complete streets", including Assembly Bill 32, Assembly Bill 1358, Senate Bill 375, and Senate Bill 743. Creating a safe, efficient, and balanced, multimodal mobility network is a priority of these plans and laws, as well as of the Specific Plan. The mobility plan puts forth the plans for creating complete streets and improving the way people, goods and resources move into, through and beyond the Plan Area.

Additionally, consistent with the City's vision, as outlined in the Circulation Element, the Specific Plan would:

- » Improve the community's appearance and identity by revitalizing the major corridors that traverse the Plan Area, including 5th Street.
- » Provide a system of improved streets that accommodates projected traffic levels due to growth in and around the

Plan Area and allows the convenient movement of people and goods in and through the Plan Area.

- » Minimize the impacts of truck traffic, particularly in residential areas.
- » Further fulfill the potential of the San Bernardino International Airport and Trade Center to become a vibrant center for commerce and travel and stimulate surrounding businesses.
- » Improve our the Plan Area's mobility system by providing a range of transportation alternatives including bicycle and pedestrian paths.

The Specific Plan was also developed consistent with and implements key goals set forth in the Circulation Element, including:

- » **Goal 6.1.** Provide a well-maintained street system.
- » **Goal 6.2.** Maintain efficient traffic operations on City streets.
- » **Goal 6.3.** Provide a safe circulation system.
- » **Goal 6.4.** Minimize the impact of roadways on adjacent land uses and ensure compatibility between land uses and highway facilities to the extent possible.

- » • Goal 6.5. Develop a transportation system that reduces conflicts between commercial trucking, private/public transportation, and land uses.

PARKS, RECREATION AND TRAILS ELEMENT

As stated in the San Bernardino General Plan Parks, Recreation and Trails Element, the City of San Bernardino aspires to develop a system of recreational opportunities that improves the quality of life of its citizens by providing a variety of healthy activities. A vibrant and diverse multi-purpose system of parks and trails is one of the finest amenities that a city can provide for aesthetic, health, and economic reasons.

Although the Plan Area covered by the Specific Plan does not contain any open space areas that require preservation or integrating into future development that will be accommodated by the Specific Plan, its land use plan and provisions provide a means and strive to protect the City's and regions natural resources. For example, Chapter 5.0, Design Standards and Guidelines, of the Specific Plan outlines a number of sustainable design and green measures. As stated in Chapter 5.0, the Specific Plan provides a sustainable approach to site and building development and landscape design. It includes sustainable

guidelines and standards applicable to development within Plan Area, which reinforce development that is attractive, efficient, and environmentally sustainable.

The Specific Plan was also developed consistent with and implements a key goal set forth in the Parks, Recreation and Trails Element:

- » **Goal 8.3.** Develop a well-designed system of interconnected multi-purpose trails, bikeways, and pedestrian paths.

In response to Goal 8.3, Chapter 6.0, *Mobility Plan*, of the Specific Plan calls for an improved pedestrian and bicycle access and circulation plan throughout the Plan Area. As stated in Chapter 6.0, these facilities are an important part of the Plan Area's non-motorized transportation network as they help implement the many benefits of Complete Streets. Chapter 6.0 also outlines a number of standards that apply to pedestrian and bicycle access and circulation. Example standards include:

- » Parkway-separated sidewalks with landscaping and shade trees should be provided where possible to provide a buffer from the street, increased safety and convenience for pedestrians, and add color and visual interest to the public realm.

- » Sidewalks and walkways shall be well lit for nighttime use and to promote safe walking.
- » All development projects and plans shall be designed to facilitate bicycle access within and connect to the Plan Area's bicycle network, and to ensure a safe and efficient environment for bicyclists.

Additionally, and as a part of the Specific Plan implementation, an amendment to Figure 3-5, *Bikeways*, of the Circulation Element was undertaken in order to change the route (not the classification) of a portion of the Class III Bike Route shown along 5th Street. Specifically, the portion of the Class II Bike Route designated along 5th Street between Tippecanoe Avenue on the west to Central Avenue on the west will be shifted north to 6th Street, as shown in Figure 6.7, *Bicycle Network*, of the Specific Plan. Currently, there are existing dedicated on-street bicycle lanes on both sides of 5th Street from Tippecanoe Avenue on the west to SR-210 on the east. Relocating the bikeway will ensure the safety of cyclists, ensure that truck traffic along 5th Street is uninterrupted, and help improve the way people get to and around the Plan Area.

Further, the planned bicycle and pedestrian infrastructure improvements throughout the Plan Area are designed to upgrade the

existing physical environment and improve the way people interact with and get around in the Plan Area. For example, closing gaps throughout the Plan Area provides mobility benefits for pedestrians and bicyclists, leading to increased trips by these modes. The Specific Plan's mobility plan focuses on establishing safe and efficient motorized and nonmotorized connections into and through the Plan Area via a complete streets approach.

UTILITIES ELEMENT

As stated in the San Bernardino General Plan Utilities Element, the goals and policies in this element are intended to maintain and/or improve the level of utility services provided to existing and future residents. The goals and policies governing utilities in San Bernardino are also intended to ensure that utility services in the City keep pace with new development.

Consistent with the purpose, goals and policies of the Utilities Element, the Specific Plan outlines the necessary utility plans, standards, and requirements to ensure that all necessary utilities and service systems (e.g., natural gas, electricity, solid waste collection, wastewater collection and treatment, water transmission, distribution, storage, and treatment, storm drains and flood control) are provided to support

existing uses of the Plan Area, as well as all future uses that would be accommodated by the Specific Plan. Specifically, Chapter 7.0, Infrastructure, of the Specific Plan outlines all necessary utilities and infrastructure necessary to accommodate buildout of the Specific Plan. For example, as stated in Section 7.3, Drainage Infrastructure System, of Chapter 7.0, based on the findings and recommendations of the Preliminary Hydrology and Channel Design for City Creek Bypass Channel study prepared for the Specific Plan, a new channel design is required in order to provide sufficient capacity to convey the 100-year flood flows between Victoria Avenue (just north of the airport and south of 3rd Street) and the Warm Creek Channel. Additionally, within the Plan Area, several projects are recommended to increase wastewater collection and distribution capacity pursuant to EVWD's Capital Improvement Program. One of these projects includes upsizing 5,900 linear feet of 27- to 48-inch pipeline with 36- to 54-inch pipeline, including a possible siphon upsize. The projects will be triggered based the amount of commercial/industrial development accommodated by the Specific Plan.

Furthermore, as stated in Chapter 7.0, the purpose and intent of this chapter is two-fold: 1) to identify the infrastructure and

utilities and service systems that will be needed to adequately serve the existing and future land uses of the Plan Area, and 2) to ensure that changes in land use also improve the area's infrastructure, utilities and service systems to support the new uses. The improvements outlined in this chapter will help facilitate the Plan Area's transformation to a more sustainable and efficient area. Future improvements include identifying ways that infrastructure can support existing and new development while promoting sustainable objectives of conservation, efficiency, and natural resource protection.

The Specific Plan was also developed consistent with and implements key goals set forth in the Utilities Element, including:

- » **Goal 9.1.** Provide a system of wastewater collection and treatment facilities that will adequately convey and treat wastewater generated by existing and future development in the City's service area.
- » **Goal 9.3.** Provide water supply, transmission, distribution, storage, and treatment facilities to meet present and future water demands in a timely and cost effective manner.

- » **Goal 9.4.** Provide appropriate storm drain and flood control facilities where necessary.
- » **Goal 9.6.** Ensure an adequate, safe, and orderly supply of electrical energy is available to support existing and future land uses within the City on a project level.
- » **Goal 9.7.** Ensure an adequate supply of natural gas is available to support existing and future land uses within the City at a project level.
- » **Goal 9.10.** Ensure that the costs of infrastructure improvements are borne by those who benefit.

Finally, Chapter 7.0 of the Specific Plan outlines standards and requirements that apply to drainage infrastructures, thereby ensuring that impact to water quality will not occur. In addition to the standards and requirements and as stated in Chapter 7.0, individual development projects will be required to comply with the water quality standards (construction and operation) in place at the time of project submittal.

SAFETY ELEMENT

The San Bernardino General Plan Safety Element addresses the way in which the City will prepare and respond to fire hazards, geologic, and seismic hazards, and flood

hazards. Policies also address ways to minimize any economic disruption and accelerate the City's recovery following a disaster.

The Specific Plan and its associated land use plan were prepared and designed in response to the many public health and safety threats facing San Bernardino and the region in general. The Specific Plan was also developed consistent with and implements key goals set forth in the Safety Element, including:

- » **Goal 10.4.** Minimize the threat of surface and subsurface water contamination and promote restoration of healthful groundwater resources.
- » **Goal 10.5.** Reduce urban run-off from new and existing development.
- » **Goal 10.6.** Protect the lives and properties of residents and visitors of the City from flood hazards.

For example, consistent with the Safety Element and in response to Goal 10.6, Chapter 7.0, Infrastructure, of the Specific Plan outlines the infrastructure improvements necessary to protect the lives and properties of residents and visitors of the Plan Area and City from flood hazards. Specifically, as stated in Section 7.3, Drainage Infrastructure System, of Chapter 7.0, the Preliminary Hydrology and Channel

Design for City Creek Bypass Channel study prepared for the Specific Plan concluded that downstream of the Victoria Avenue/City Creek Bypass Channel junction, the channel is insufficient to convey the 100-year flood flows in its current configuration. Based on the findings and recommendations of the study, a new channel design is required in order to provide sufficient capacity to convey the 100-year flood flows between Victoria Avenue (just north of the airport and south of 3rd Street) and the Warm Creek Channel. Therefore, the Specific Plan lays out the necessary plans for the channel design to provide sufficient capacity and thereby prevent flooding issues in and beyond the Plan Area.

NATURAL RESOURCES AND CONSERVATION ELEMENT

As stated in the San Bernardino General Plan Natural Resources and Conservation Element, the City values the preservation of natural resources, wildlife habitat, and air quality. These resources are important to the City, and through the strategies and policies outlined in this element, the City will work to preserve and protect the existing resources and to capture new resources as they become available. The goals and policies in this element are intended to

maintain, improve, or preserve the quality and supply of the City's natural resources. Features such as the

The Specific Plan was developed consistent with and implements the purpose of preserving and protecting the air quality of the City and region. For example, the Specific Plans mobility plan (Chapter 6.0) puts forth the plans for creating complete streets and improving the way people, goods and resources move into, through and beyond the Plan Area; therefore, ensuring that the local and regional air quality are protected from emissions generated by mobile sources. Opportunities to create new active transportation options for walking and cycling throughout the Plan Area help reduce greenhouse gas emissions and can also help alleviate roadway congestion, improve air quality, and improve the health and wellness of residents and workers of the Plan Area.

- » Goal 12.5. Promote air quality that is compatible with the health, well being, and enjoyment of life.
- » Goal 12.6. Reduce the amount of vehicular emissions in San Bernardino.
- » Goal 12.8. Preserve natural features that are characteristic of San Bernardino's image.

ENERGY AND WATER CONSERVATION ELEMENT

As stated in the San Bernardino General Plan Energy and Water Conservation Element, despite the renewable resources available to San Bernardino, the City, like so much of America, is largely dependent on non-renewable energy sources, which result in reliance on unpredictable supplies that are outside of the City's control. In addition, our abundant water supply can be affected by variable periods of rain and drought as well as the demands of the rest of Southern California. Efficient use of these resources can reduce costs, help improve regional conditions, and be an economic benefit to San Bernardino. The Energy and Water Conservation Element provides policy guidance that addresses the efficient use and conservation of the City's valuable energy and water resources.

The Specific Plan was developed consistent with and implements the purposes of the Energy and Water Conservation Element as well as key goals set forth in the element, including:

- » **Goal 13.1.** Conserve scarce energy resources.
- » **Goal 13.2.** Manage and protect the quality of the City's surface waters and ground water basins.

For example, consistent with the Energy and Water Conservation Element and in response to Goal 13.1 and 13.2, the Specific Plan includes design standards in Chapter 5.0, *Design Standards and Guidelines*, that will help the City make efficient use of the natural resources available to the City. As stated in Section 5.11, *Sustainable Design and Green Measures*, of Chapter 5.0, the Specific Plan provides a sustainable approach to site and building development and landscape design. Section 5.11 includes sustainable guidelines and standards applicable to development within Specific Plan Area—they reinforce development that is attractive, efficient, and environmentally sustainable. The design standards are broken down into four general categories: site design and infrastructure; building design and materials; energy; and solid waste and recycling. Section 5.8, *Landscape Design* of Chapter 5 also outlines a number of standards geared to conserving the City’s water resources, including the requirement to incorporate water-conserving landscaping into a project’s landscape plan and the provision of automated, high efficiency irrigation systems.

NOISE ELEMENT

As stated in the San Bernardino General Plan Noise Element, San Bernardino is affected by several different sources of noise,

including automobile, rail, and air traffic, sports events, commercial and industrial activity, and periodic nuisances such as construction. The control of noise, therefore, is an essential component in creating a safe, compatible, and productive environment. The Noise Element provides policy guidance that addresses the generation, mitigation, avoidance, and the control of excessive noise.

The Specific Plan and its associated land use plan were prepared and designed in response to the many noise issues (mobile and non-mobile) facing San Bernardino. The Specific Plan was developed consistent with and implements key goals set forth in the Noise Element, including:

- » **Goal 14.1.** Ensure that residents are protected from excessive noise through careful land planning.
- » **Goal 14.2.** Encourage the reduction of noise from transportation-related noise sources such as motor vehicles, aircraft operations, and railroad movements.
- » **Goal 14.3.** Protect residents from the negative effects of “spill over” or nuisance noise.

For example, consistent with the Noise Element and in response to Goal 14.1 and 14.3, Chapter 6.0, *Mobility*, of the Specific Plan includes plans and provisions to protect

sensitive land uses and individuals from annoying and excessive noise generated by truck traffic. The mobility plan calls for limiting the number of access driveways for development sites and prohibiting truck access along 6th Street, which would help reduce truck traffic noise that would affect sensitive land uses and individuals along this street. The Specific Plan also includes design standards in Chapter 4.0, *Design Standards and Guidelines*, that will help protect sensitive land use and individuals from noise generated on commercial/industrial development sites. For example, one design standard requires the provision to buffer (i.e., through the use of walls, landscaping, and setbacks) residential areas along 6th Street and adjacent to Tippecanoe from noise or undesirable views.

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